First Copy

A National Newspaper for Every Branch of the Industry

Automotive Daily News

CARS · SHOP EQUIPMENT · TRUCKS · AVIATION · PARTS · ACCESSORIES · TIRES

Vol. 13. No. 1740 — Entered as second-class matter Aug. 27, 1925, Post Office, N. Y., N. Y., Under Act of March 3, 1879. — NEW YORK, TUESDAY, MAY 31, 1932 — 5 Cents. $12 Per Year.

New Car Sales in April Total 119,540 Units; Peak Sales Month Still to Come

Reports From Sales Chiefs Indicate May Will Top April; Ford Influence Seen as Affecting June-July

By WILLIAM C. CALLAHAN

New York, May 30.—Registrations of new passenger cars in the United States during April totaled 119,540 units, according to reports today by R. L. Polk & Co., Detroit.

An interesting development is the fact the actual sales in the United States during April came within 1,000 units of exceeding the production for that month without making any allowance for exports. In addition, the production figures showing a total of 120,841 units, includes foreign assemblies from parts made in the United States and reported as complete units or vehicles.

Whether the April new car sales total of 119,540 units will be the peak for the year is still a big question. During the past five years, with the exception of 1928, the sales peak occurred during that month. In 1928, however, the peak occurred during May. Reports from sales chiefs throughout the industry would indicate the likelihood of May or later being the peak month this year. Actual figures, however, are not yet available to make definite estimates possible.

During the month of April, however, sales got away to a bad start, due to the inclement weather during that period. Special showings served to offset the effects of the bad weather, but the question now stands as to whether or not the benefits from these special showings were carried on into May. Weather conditions during the past month have been generally satisfactory.

April-May sales comparison dur-

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COMMERCIAL CREDIT SAYS ONLY SANEST THINKING ESSENTIAL

New York, May 30.—We are paying the price of the silly obsession that nothing can stop progress in this country, says Commercial Credit Company's bulletin, Automotive Observations, issued today. We have been deluded by this idea during the period of industrial expansion since the Civil War, the bulletin states.

"Although we know at last how wrong we were," the bulletin points out, "the penalty is here, and nothing but the sanest thinking we have ever done will lift the load our lunacy has put upon us. Like every other great nation in history, our progress can be stopped and has been stopped by poor judgment, greed and a temporary weakening of moral standards. The stoppage will only be momentary if we correct these faults.

"One of the chief reasons for our present bewildered state is the fact that we do not trust each other. Too many dealers do not trust their factories. The factories distrust too many dealers. How the finance companies rate with them both we don't know, but we've made our mistakes and are surely not put down as angels.

"Business as a whole does not trust the financiers. Financiers do

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BRITISH COLUMBIA PLANNING FINANCIAL RESPONSIBILITY LAW

Vancouver, B. C., May 30. — Amendments to the motor vehicles act insuring financial responsibility on the part of motorists for any damage they occasion through accidents will be brought into operation shortly by proclamation, according to Attorney General Pooley. The new sections of the act were inserted at the last session of the Legislature and will require proof of financial responsibility after a first accident where just claims remain unsettled.

Settlement on the form and terms of the policy is expected shortly and will remove the last barrier to the application of the law in British Columbia.

The main object of the plan is to insure that all who operate motor

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ENGINEERS OF 18 NATIONS MEETING IN MILAN, ITALY

New York, May 30.—Engineers of eighteen nations are meeting in Milan, Italy, for a series of technical conferences aimed to secure international uniformity in standards for airplane and automobile parts, cutting tools, iron and steel, and other subjects, it is announced by the American Standards Association.

The conferences, to extend through the 9th of June, are under the auspices of the International Standards Association, which includes in its membership the national standardizing bodies of the United States, France, Germany, Italy and fourteen other nations.

Ernest Wooler, chief engineer of the Timken Roller Bearing Company of Canton, O., an American delegate, will discuss before the conference on ball and roller bearings the American proposal to replace the thousand different types and sizes now manufactured in the United States alone.

Subjects which will be studied by the conference on aeronautics, in an effort to secure greater international uniformity in essential features of airplanes, are: Direction of rotation of the engine, safety belts, propeller hubs, electric voltages aboard airplanes, floats for seaplanes, parts of the steering equipment and engine control levers, dimensions and arrangement of instruments, instrument dials, identification colors for pipe lines, screwed pipe connections and valves, screw threads and prin-

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May Car and Truck Production Estimated at 190,000 Vehicles

This Total Coincides With A. D. N. Estimate of May 4, And Compares With 154,823 Unit Production During April This Year

New York, May 30.—Telegraphic reports from automobile manufacturers in the United States and Canada for May indicate a total for the month of 190,000 to 193,000 units. While this total falls short of earlier estimates of a 200,000 car month, it is in line with the estimates made by Automotive Daily News on May 4, which placed the May output at 190,000 units.

In the May 4 estimate it was anticipated that the Ford production during May would surpass the 40,000 mark. Reports now available indicate that this maker exceeded that mark by a wide margin, with his total placed in the neighborhood of 71,000 units. From reliable sources outside the Ford Company it is reported that the company produced 48,000 passenger cars, ten to twelve thousand trucks and 1,000 miscellaneous units such as station wagons. In addition, the foreign assemblies and exports were estimated 7,000 units, with still another 4,000 units produced in Canada.

The May production of 190,000 units would compare with 154,823 units during April as reported in Automotive Daily News on Saturday and 127,277 for March. The production during May last year totaled 329,901 units.

Reports on sales during April are complete today, and the total for new passenger cars alone is placed at 119,540 units, which fell only 1,000 short of the total passenger car production during April.

Estimated June schedules are not yet available, but will be presented in Automotive Daily News later in the week. Sales for May are expected to exceed April, and the Ford influence may even delay the peak sales month to June or July. Whether May will mark the peak production month this year or not is still a question.

DODGE SALES UP 4.82% FOR MAY

Detroit, Mich., May 30.—Figures released by the statistical department, Dodge Brothers Corporation, show that total deliveries by Dodge dealers during the three weeks from May 2 to 23 were considerably ahead of the same period in 1931. The increase for the period amounted to 4.82 per cent.

At the same time, it was disclosed that deliveries of Plymouth cars by Dodge dealers from January 1 to May 21, 1932, registered a 239.7 per cent. increase over the same period a year ago. Records reveal that Plymouth deliveries by Dodge dealers have increased steadily for twenty-one consecutive weeks.

DEALERS IN CONN. FAVOR DELIVERED PRICE PROPOSAL

Bridgeport, Conn., May 30.—Connecticut dealers are overwhelmingly in favor of the two proposals recently advanced by the National Automobile Chamber of Commerce regarding price advertising and number of options, according to the results of a survey conducted by Automotive Daily News among representative car merchants in three different cities.

The N. A. C. C. has advocated substitution of delivered prices for f. o. b. in all new car advertising, and a sharp reduction in the number of models and options now offered.

"The f. o. b. price policy should be changed if it is at all possible," declares William Gruber of the F. L. Mills Company, Studebaker dealership of 2316 Fairfield Ave., Bridgeport. "At the present time the factory will not allow us to change the price in their advertisements. The number of models should be cut down decidedly and the options on colors reduced to as few as possible."

"The factories can and should district the country on f. o. b. prices," according to Horace Sanford, sales manager of the Randolph Cadillac Company, Cadillac and La Salle, 1027 Fairfield Ave., Bridgeport. "There are altogether too many models on the market and the options on colors should be cut to a minimum. We consider the present color arrangement to be a major annoyance."

H. C. Loveland, manager of the Bridgeport branch of F. W. Williams, Inc., Graham-Paige distributors, 1997 Fairfield Ave., cited the

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S. P. A. R. CHANGES CORPORATE NAME

New York, May 30.—Announcement was made here today that the corporate name of the S.P.A.R. Sales Corporation has been changed to the Studebaker - Pierce - Arrow - Rockne Sales Corporation and the initials S.P.A.R. will no longer be used as the corporation name.

This change does not in any way effect the names of the S. P. A. Truck Corporation, which is a manufacturing unit.

CANADIAN CAR FINANCING GAINS DURING APRIL

Montreal, May 27.—The figures for automobile financing compiled by the Dominion Bureau of Statistics show an increase in April, 1932, as compared with March, 1932, and indicate a falling off in financing, as compared with the corresponding month (April) in 1931. The per cent. of change is —52.9.

The total number of cars financing was 7,205 in April, 1932; 4,935 in March, 1932, and 14,533 in April, 1931; and the amount involved was $2,944,713 in April, 1932; $2,018,421 in March, 1932, and $6,253,962 in April, 1931.

New cars financed were 2393 in April, 1932; 1,631 in March, 1932, and 5,584 in April, 1931; while used cars financed were 4,812 in April, 1932; 3,304 in March, 1932, and 8,949 in April, 1931.

Financing of new cars amounted to $1,567,388 in April, 1932; $1,059,540 in March, 1932, and $3,376,264 in April, 1931. Financing of used cars amounted to $1,377,325 in April, 1932; $958,881 in March, 1932, and $2,877,698 in April, 1931.

NASH PURCHASES SUMMER HOME IN BEVERLY HILLS, CAL.

Kenosha, Wis., May 30.—Charles W. Nash, former president and now chairman of the board of the Nash Motors Company, has purchased the R. L. Hargreaves estate at Beverly Hills, Cal., where he will make his home with Mrs. Nash after January 1, 1933.

For several winters the Nash family has been at Beverly Hills with their daughter, Mrs. George Brenton.

HUDSON-ESSEX OF CANADA CUTS ALL PRICES

Toronto, Can., May 30.—Substantial price reductions on all models of Hudson and Essex cars were announced today by Hudson-Essex of Canada, Ltd., from the plant at Tilbury, Ont.

"These low prices are in keeping with the policy of our company to pass on to the public the benefit of saving as brought about by increased manufacturing efficiency," said A. E. Barit, Canadian president, commenting on this latest contribution to the Canadian-goods-for-Canadian-buyers' program.

CHICAGO BOOSTERS TO HONOR M. E. W. A.

Chicago, May 30.—The Chicago Booster Club, local section of a national organization of automotive manufacturer salesmen, will honor the Motor and Equipment Wholesalers Association here at the Auditorium Hotel by setting aside June 20 as M. E. W. A. Day.

As a special compliment to the jobber organization, the club has invited E. T. Satchell, president of the Motor and Equipment Wholesalers Association, as guest chairman and speaker. Mr. Satchell has accepted.

The noonday meeting of the Chicago Boosters Club falls on the same day as the opening of the summer conference for representatives of regional group organizations affiliated with the M. E. W. A. The delegates who will be here from many parts of the country for the jobbers conference will attend the Boosters Club meeting in a body, along with a number of other jobbers who are to be present from the Chicago area at the summer conference.

New Car Sales in April Totaled 119,540 Vehicles

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ing the past five years are as follows:

	April	May
1932	119,540	.....
1931	265,732	247,727
1930	357,065	345,041
1929	481,896	454,153
1928	332,180	351,509
1927	327,704	315,328

The sales figure for April showed a marked gain over the total for March this year. The estimated total for March based on returns from forty-seven states and the District of Columbia is 92,500 units. If this upturn is continued in May, as now seems likely, there is little question that May sales will top April if not prove the high for the entire year.

One of the features which caused the May peak during 1928 was the fact that the Ford plants, which had been at a standstill during the greater part of 1927, were just getting well under way on the Model A, which made its debut in December, 1927. A much smaller condition exists today, with the Ford plans now getting into swing with reproduction on the new Model 18. Whether the increase in Ford sales will carry the peak month beyond May is problematic.

At the present writing, this seems rather unlikely, even in face of rumors that several other low-price cars are being groomed for the midsummer market. It is generally understood that Ford assembly plants are now operating on the basis of filling orders on hand. Some time ago it was reported that this company had accumulated a bank of some 300,000 orders. If these figures are correct, the Ford registrations during the next few months should show substantial gains, but it is not likely that any of the Ford plants will be pressed to capacity until actual additional orders develop to warrant such a step.

There can be no question that makers other than Ford are being guided solely on the basis of demand, and reports from Ford assembly plants indicate that he has no intention at this time to try to force his market. It is too early now to determine whether or not the return of Ford to production will in itself act to stimulate demand.

One of the most disturbing factors in the market today is the apparent actual lack of cash in the public pocket and the lack of confidence on the part of those who have cash that there will be more when theirs is gone. Attendance at shows and special exhibits this year are ample proof that the public has not lost interest in automobiles. Possibly the increased show attendance in many cases was due to the fact that many people during the past three years have been forced to forego automobiles in favor of the absolute necessities of life, but could not be denied the pleasure of looking and hoping. Dealers today in most centers report very little falling off in the size of their audience—beyond the plate glass.

There can also be little question that the dilatory actions in Washington are largely responsible for the present public sentiment. Then, too, the proposal to impose a special tax on automobiles has tended to accentuate the largely erroneous opinion that automobiles are a luxury to be enjoyed only by those who can afford such other vital necessities as whiskers on their gate posts. The only effect this tax can possibly have would be to further impede car sales. There seems to be no constructive effort toward creating an actual market.

The efforts to ease credit are laudable but if the average automobile manufacturer were to avail himself of easier credit and put such monies to immediate use in producing automobiles he would glut his market badly before the uplifting effect of his effort began to be generally felt.

The answer seems to be to bring about a redistribution of wealth, so that the buyer will have money with which to buy. The next problem is to do this in such way that the buyer may honestly earn his share of the redistributed wealth in productive activity, which will be confined to self-supporting projects, and which will not result in the later glutting of any market through the overproduction of any product. Highways, tunnels, waterways, wharves, toll bridges, levee systems, Federal or state flying fields would seem to be the answer to this problem. Such humanitarian projects as the elimination of grade crossings, reduction of slums, improvements in health service all would offer still further employment and the cost could be written off later, as has already been suggested through a tax on beer. Dealers who feel the same way about present conditions should help their Washington representatives with constructive suggestions.

Special automotive taxes at this time should be avoided if at all possible. A general sales tax from the automotive standpoint would be much preferable, but in any case, no matter how thin you slice it, it is still a tax.

Have you a message for Engineers?

Engineers and production men of the industry will gather at White Sulphur Springs, June 12 to 17, for the summer meeting of the S. A. E.

Each day *Automotive Daily News* will cover the meeting editorially. Copies will be mailed to all important engineers, production men and other factory officials in the industry in addition to those who attend the meeting.

Please send space reservations early. Forms close two days preceding publication.

Publication Dates—June 14, 15, 16, 17

Automotive Daily News

H. A. TARANTOUS, *Bus. Mgr.*, 350 HUDSON STREET, N. Y. C.
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Fisher Building, Detroit, Mich.
WESTERN OFFICE: Willard R. Cotton, Manager
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DEALERS IN CONN. FAVOR DELIVERED PRICE PROPOSAL

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fact that Graham has cut its number of models within the past year as an indication of the trend.

The f. o. b. policy as now employed is a decided obstacle in selling and should be changed in some way, Mr. Loveland believes. A great many prospects, he said, are inclined to take national advertising more seriously than the local type and expect to buy their cars at the nationally advertised price, which invariably causes trouble. He believes that all color options should be cut out.

"Owing, of course, to the variation of freight distances from the factory, it would be difficult to change the f. o. b. policy in national advertising," Winfred L. Foss, treasurer of the George B. Wuestefeld Company, 190 Whalley Ave., New Haven, Studebaker dealership, pointed out.

"We would be in favor of a straight price. This would require adoption by all dealers, owing to the competitive situation, however. There is a standard list of prices for New York and New England. The variation in car loads is a factor which must be considered when comparisons are made.

"As to the number of models, the selection of models depends to a large extent upon the local demand, but the main question which comes up on this point is the natural difference of opinion between the sales force and proprietors. No doubt it would be better for all concerned to have fewer models.

"I have always felt that too many colors have a tendency to confuse rather than to help sales. I think all will agree that the fewer to select from the better. I suppose some models are popular in one part of the country and not in another."

The Baldwin Repair Company, 117 Church St., Middletown, Chevrolet, Pontiac and General Motors truck dealership, substitutes delivered prices for f. o. b. in most of its national advertising, according to Dayton A. Baldwin.

Mr. Baldwin thinks that a decided reduction in number of models is necessary. He cited the fact that his concern handles a total of forty-eight passenger car models. He also feels that prices should be standardized to include necessary accessories, etc., and the "smoke screen" removed.

"It would be a good idea to hear from various dealers throughout the country with suggestions as to a means of remedying the f. o. b. situation and reducing the number of options," Mr. Baldwin said.

C. W. Jackson of the Jackson Motor Car Company, Stack Street, Middletown, Oldsmobile dealership, indorsed both proposals of the N. A. C. C. "Anything to simplify these questions would be beneficial," he said. "In this town we have but a few models, as the demand for variation is limited. We are very much in favor of a change in the price quoting situation, but cannot offer any suggestion as to how it can be accomplished."

Another Middletown dealer in the low price class, who preferred not to have his name used, stated that the proposals, if carried out, would benefit all concerned. "The more models there are, the more you are expected to carry," he said.

NAMES H. W. SMITH

Cleveland, May 30.—A. L. Englander, head of the A. L. Englander Motor Company, who last week announced the organization of the Englander-Pontiac, Inc., to deal in Pontiac cars, has appointed H. W. Smith manager of the latter organization. The Englander company has held the distributorship for Hupmobiles here for many years. The Englander-Pontiac company will have showrooms adjoining the Englander company at 7200 Euclid Ave.

IN NEW QUARTERS

Erie, Pa., May 30.—Brainard's Garage, specializing in Ford and Chevrolet service work, has been established in modern quarters at 17 West 12th St., under the management of A. L. Brainard. The new firm has installed facilities for complete lubrication, washing, polishing, etc.

SPARKS from DETROIT

These Off Days

* * *

What's in the Wind

* * *

High Priced $600 Cars?

* * *

And Also a Twelve

* * *

Chris Sinsabaugh—Detroit Editor

THAT three-day moratorium, the stretch over Decoration Day, has raised the very devil with the column conductor. He's scraped the bottom of the idea barrel and can find nothing but empty shells—nothing you can sink your teeth in. So there is nothing to do today but dial old Dame Rumor in hopes she can dig up something that will interest the cash customers.

* * *

LET'S SEE. There's the story that's going around that one of the big factories here has in readiness a four-cylinder job that will boast the lowest list ever quoted on a really-truly automobile. With all this smoke, there must be some fire, so we venture to predict that this model is likely to break by midsummer.

* * *

A COMPANION RUMOR is that one of the big corporations has a similar line up its sleeve, something that is likely to pop before fall, providing conditions are ripe.

And we hear of still another that is watching the way the wind is blowing. Not that it really intends to put such a model on the market; yet, if the demand is there, we understand there is a third company here which has on the shelf a bantam model which can be dropped on the market if necessary. So far nothing has been done in a production way—the engineers have turned out such a model and are waiting for the big boss to give the word. It must be admitted though, going on present conditions, the chances of this bantam debutting are slim right now.

* * *

IF WE CAN place any credence in these rumors, and we think we can, to a certain extent, it distinctly shows the trend toward the low-priced market. Maybe that wisecracker was right when he said that in 1933 the $600 automobile will be in the high-priced division.

But it's an odd angle, after all—Ford practically sidetracking the four for the eight, and two of his rivals figuring on going after the business in that division. It would seem as if the four is far from being out of the reckoning, but probably the success Plymouth is meeting with its floating powered four-cylinder models has convinced the industry that the four is still a very live proposition.

* * *

ONE OF THE NEW bits of gossip that has come to the desk is that a Detroit manufacturer in the middle class field has a twelve-cylinder proposition that bubbles over with speed which may make its bow in a couple of months.

BRITISH COLUMBIA PLANNING FINANCIAL RESPONSIBILITY LAW

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vehicles on the road will be financially responsible for any damage they cause to individuals or public property. This, in common with existing Ontario laws on the subject, is brought about by provision for revocation of license after a first accident, where just claims remain unsettled. Adequate proof of financial responsibility, either through insurance or otherwise, would be demanded after a first lapse.

While not actually compulsory insurance, the new sections in the act would tend to make liability and property damage insurance almost universal, as is said to have been the case in Ontario. The plan will not be brought into operation until all arrangements have been made, when a proclamation will be issued.

NIELSON APPOINTED

Dunkirk, N. Y., May 30.—Arthur Nielson has been appointed superintendent of service of the Watrous Chevrolet Company, 17 Lake Shore Drive, Dunkirk. He has been engaged in Chevrolet service throughout western New York for the past five years.

ENGINEERS OF 18 NATIONS MEETING IN MILAN, ITALY

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ciples for the computation of rating of airplanes and engines.

Other conferences will be held on cutting tools, center heights and dimensions of shaft ends of electric motor and driven machines, shafting keys, fluid meters and sieves for testing purposes.

The countries which will be represented at the International Standards Association conferences through their national standardizing bodies are Austria, Belgium, Czecho-Slovakia, Denmark, Finland, France, Germany, Holland, Hungary, Italy, Japan, Norway, Poland, Roumania, Russia, Sweden, Switzerland and the United States.

NEW DODGE DISTRIBUTOR

Green Bay, Wis., May 30.—The Brown County Motors has been named distributor for Dodge Brothers sixes and eights, Plymouth and the Dodge Brothers trucks. The Brown County concern was formerly dealer for Hudson and Essex automobiles.

CLASSIFIED ADVERTISEMENTS IN THE AUTOMOTIVE DAILY NEWS BRING RESULTS

Retail Salesmen—This Is Your Page

This department is devoted to the interests of the retail sales division of the industry. Salesmen, this is your department. Automotive Daily News wants you to get something from this department that will help you in your work on the firing line. It wants you to pass on your own experiences, successes, failures to help your brother salesmen. Send in your story in the form of a letter, or even a postal card, and let us get it ready for publication. Your achievement or your mistake may help another salesman to make sales or avoid errors that cost you commissions.

Dealers read this page. Give us the benefit of your reactions on these problems that affect the work of your salesmen, the men on the firing line, the men who bring home the bacon or don't.

NO MASSED SALES MEETINGS; DEALER SEES 1 MAN A DAY

By K. H. LANSING

Instead of following the usual trade custom of holding daily sales meetings attended by all the members of the selling staff, Ware Brothers, Nash dealers, 5705 Walnut St., Philadelphia, who employ six salesmen, have the sales manager, Richard M. Ware, a member of the firm, meet each day a single different salesman. This method serves to bring the sales manager into unusually close personal touch with every member of the force and his particular problems, and insures the serious attention of each man to everything that is said to him. At such dialogues the sales manager gains a clear idea of what the salesman interviewed did the previous day and what ne is going to do today, planning the new work with him.

The sales forms in use are the Salesman's Report Card, the Salesman's Work Sheet and the Prospect Record. Of the last mentioned, there are sixty-five for each salesman kept on file in the office index cabinet, this number of cards being the capacity of each individual drawer. Each salesman is protected for a period of thirty days on each prospect thus listed.

The Salesman's Report Card is a yellow form, 6 by 4 inches, being a report on the face side and on the reverse side an appraisal form, item by item, of the customer's exchange car, with the condition of each part filled out in code. The form was originated by Sales Manager Ware, and is economical from the viewpoints of saving time and trouble, as well as the printing and handling of separate appraisal sheets, the recorded transactions being thus kept conveniently together for quick reference. This card is carried by the salesman. Its headings on the face, or report side, to be filled out by the salesman, are: Name, home address, home telephone number, office address and business telephone number of the prospect; in what car he is interested in considering; make of car he now owns; name of the salesman; the date of the report; source from which the lead came; amount offered by the dealer for the exchange car and the amount asked by the prospect; date of the call on the prospect; remarks of the salesman about the call and the date of the next call to be made on this prospect.

On the reverse side the top entries are: Date of appraisal; make, model, year of production, serial number, number of cylinders and capacity of the exchange car; while the headings of the columns below are: Item checked; its condition; the amount the company must spend to put it in reselling condition and remarks. There are 26 items to be thus checked up. The code figures to indicate the condition of each item in the column opposite its designation are: 1—Good; 2—Fair; 3—Poor; 4—Very Poor; 5—Junk. There are spaces at the bottom of the card to record the mileage of the exchange car; name of appraiser; sum for which the company expects to resell the exchange car and Red Book valuation on it.

When the salesman sees the sale manager on his special day of "meeting," he shows him his report cards and together they talk over the situation. The sales manager then personally transcribes to his own Prospect records for filing such data as he needs therefor from these reports brought in by the salesman.

There are three possible dispositions of a Salesman's Report Card. When the prospect becomes a customer and buys a Nash, the card is attached to the order. If the prospect is apparently a "live" one no longer, but the salesman believes he may be able to swing a deal after all, it is saved for a time; and if the prospect purchases a competitive car, the card is destroyed.

The Prospect Record is a white form with a special one-inch margin at the bottom, which folds back against the form, making it then conform in size to the Salesman's Report Card. The Prospect Record, which is always retained in the office for the use of the sales manager, bears at the top the name of the Nash Motor Company, this being a standardized factory form; on the extreme left the date and on the extreme right a column under the heading "Prospect Record." The space in the center is a wide one for writing in details. The folding margin at the bottom, already mentioned, has the following data drawn off from the Salesman's Report Card: Name of prospect, in what type of car interested, type of car now owned, business address and telephone number of prospect and his home address and telephone number, name of salesman reporting and date of report, whether a demonstration has been made, whether a no-trade deal or a straight sale and a line of figures from 1 to 31, representing the days of the month; a date in advance of the next call date to be circled by the sales manager so that the salesman will be reminded in plenty of time to make his call-back.

Unless there is a very good reason for retaining it, a Prospect Record is removed from the file after thirty days without a sale resulting from contacts.

In addition to his report cards the salesman also carries with him his work sheet, which bears the title "My Work Today." This is also a standard form for the Nash. It is a white sheet 11x8½ inches, and at the top has spaces for the salesman's name, his floor period and the date. Just below these entries are listed, in order, the names of the prospects to be called on that day, the results of each call and the date of the next call on each. The prospects' names being in a column, the salesman as he glances down it will be reminded of all whom he has to see that day, and is not likely to pass any of them up. If a call is personal, it is marked C, and if by telephone, it is marked P on the form.

On the reverse side of the form are spaces to fill in under the following headings: Phone Canvass Calls, Canvass Calls, Owners Seen and Results, as well as a summary that covers the foregoing; also prospects interviewed (as well as called on), prospects brought to the store, owners seen, demonstrations given, valuations made of prospects' cars, new prospects' names filed, cars taken in trade, giving units and value, and sales made—that is, signed orders with substantial deposits, without conditions for either new or used cars. There is also a space for remarks on time spent in making deliveries, number of follow-ups, mail addressed and literature distributed.

All the salesmen sell both new and used cars and each salesman has his turn on the floor. One man does duty there from 9 a. m. till 1 p. m. He is then relieved by a man who remains on duty till 6 p. m., and there is a third shift from that hour until 10.30 p. m. At night two men are on floor duty, as is the case on Saturday afternoons. While no salesman is posted in the service station, which is in the rear portion of the building, John Ware, the sales manager's brother, is service manager, and if he notes that a car owner in the station appears to be ready for a new car he is alert to tip off the floor salesman. George Ware, father of the Ware brothers, is associated with the selling end of the dealership.

Salesmen are paid on a direct commission basis, plus prizes from sales contests held twice a year, which includes bonus opportunities, plus other bonus chances.

The territory most intensively covered is West Philadelphia, in which the firm is located, having been on Walnut Street for the last ten years.

Know a Prospect Essential, Says This Texas Salesman

By B. C. REBER

To sell successfully, two things are essential before any results may be expected, says Ray Nobles, for ten years associated with the sales staff of the Guarantee Motor Car Company, Graham distributor, San Antonio, Tex. Discussing his experiences, Mr. Nobles says:

"There are two things in selling automobiles that are essential to successful selling, and which must be acquired before a salesman can expect to get any appreciable results. The first of these is an ability to identify a prospect when you see one, and the second is the ability to determine what he is a prospect for.

"There are hundreds of salesmen who, through lack of experience, and not from lack of sincerity or effort, who waste a lot of time working on prospects who could not buy if they wanted to. The ability to determine a prospect, that is, a prospect who is in a position to make a purchase, and who through good sales effort, may be developed into a customer, is in a great measure acquired through long experience.

"On our sales staff there are two or three men who have not had a great deal of experience in selling automobiles. They are eager, ambitious, and work hard, but they don't make a great many sales, because many of their prospects are merely curiosity seekers. There are hundreds of people around looking at $1,500 automobiles who could not buy a $98 radio set, if they were offered terms of a dollar a week. Yet they will take up all the time they can, talk encouragingly, ride around for several hours, make all sorts of inquiries, and then fall flat on the close-out.

"While experience goes a long way in weeding out such prospects, or lookers, as they might be more properly termed, there are certain means through which they may be quickly analyzed. If a man means business, or if he is in a position to buy a car, this may be quickly determined by a few pertinent questions which will provide the essential information.

"If he is employed by a reputable concern, and has been with that firm for some time, the chances are that he is a home owner, or is fairly well fixed financially. If he already owns a car, and that car is two or three years old, it is reasonable to conclude that it is paid for, and that he should be in the market for a new car. The man who has once owned a new car is never quite satisfied until he has another, and is generally a prospect for one a little better than the first.

"It requires some intuition to determine the status of a prospect, and this is mostly acquired through long service in selling. It is a good policy to keep in contact with persons who may, in the future become good prospects, but as little time as possible should be spent with them.

"The fact that a man is a prospect does not necessarily mean that he may be a prospect for an expensive car. His buying power must be determined by the salesman, for more unpleasantness and trouble may develop from a man who has been oversold than from a prospect who is turned down flat. If a man cannot afford a new car of expensive make, but admires that particular car, it may be possible to sell him a late model used car, in which case the payments will be within his capacity.

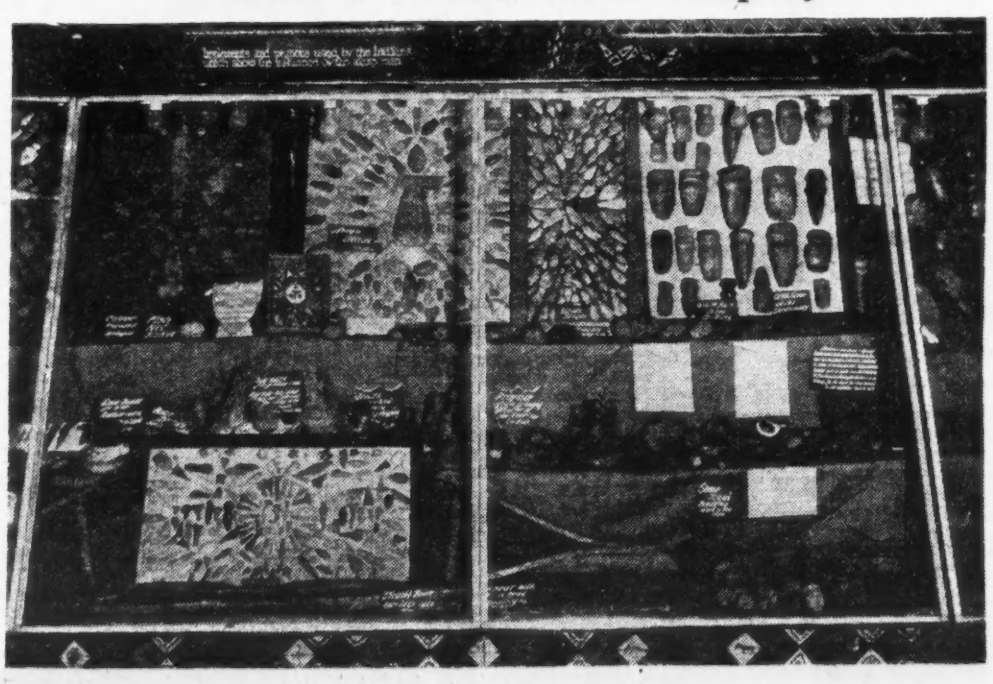
"The majority of persons who are 'looking' at automobiles are not in a position to buy. It is up to the salesmen to weed out the ones who are possible prospects and purchasers. From the hundreds of names turned over to him during the year, he must weed out those that are no good and direct his efforts toward those from whom he may expect some returns. If the prospect's name is had before an interview is arranged, it is often possible to get all the information necessary before making a call. This will eliminate a lot of preliminary work and speed up the sale, if a sale is possible. If the prospect is not a favorable one, a call may be made, but as little time spent as possible.

"To acquire consistent returns, the salesman must build up a clientele of customers and friends who will keep him supplied with prospects, who, in the majority, are good material. Such prospects are in the majority actively interested in a car, and such information as is needed may be obtained from the informer before any call is made on the prospect.

"It is from this source that the majority of good sales come, and any salesman, to earn a consistent salary, should develop these as far as possible.

"In selling, however, as in everything else, it is results that are desired, and in getting these results, the two rules set down, work out in all cases: Know a prospect when you see one, and know what he is a prospect for."

Pontiac's Indian Relic Display



ABOVE IS SHOWN one of the show cases containing American Indian relics displayed at the New York Pontiac showrooms, Broadway and 57th Street

ACTION ON TAXICABS DELAYED IN MASS.

Boston, Mass., May 30.—The Legislature has voted to refer to the next annual session a bill (House 486) to place all taxicabs in the commonwealth under the supervision of the State Department of Public Utilities.

A committee report that no legislation is necessary has been accepted on a report of a special commission established to investigate the advisability of regulating the business of transporting property for hire by motor vehicles (Senate 45).

HESS NAMED PRESIDENT OF CINCINNATI CLUB

Cincinnati, O., May 30.—At a meeting of the board of governors of the Carriage, Auto and Accessory Club of Cincinnati, on April 17, Emil E. Hess was elected president. He is general manager of the Sayers & Scovill Company, manufacturers of funeral cars and ambulances, and is prominent in a number of civic activities.

Automotive Daily News

"Of, By and For the Entire Automotive Industry"

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Socking the Poor

IT will scarcely be a shock to any reasonably intelligent American to hear the suggestion that Congress has made a mistake. The reaction of most Americans to that statement would be a groan, and "when did it ever make anything else?"

However, the particular mistake that we believe Congress has made in this instance is in its unmistakable campaign to "sock the rich." We hasten to assure our readers that we have no personal interest in protecting the rich or the near rich, or those related to either class.

No, our feeling is that Congress has erred in placing its limitations as to those included in the "rich class," rather than in socking that genial fraternity in which we have only the vaguest interest.

Obviously, our national legislators are imposing excise taxes on automotive products because they figure that any man who can own and operate a car must be "rich." He is enjoying a luxury, when the rest of the country is scrabbling for bread. In the samples of brain work that have come out of Washington during this session, we can almost hear the average congressman saying: "Sure, dem guys what owns cars is rich guys, let's sock 'em on de bean."

As a matter of fact, the vast majority of car owners in this country could not be classed as rich, by any stretch of the imagination. More than 75 per cent. of all cars sold during the last few years have been in the lowest price bracket. The vast majority of these cars were not bought with any idea of pleasure or luxury in mind. They have been bought purely and simply as a utility.

Automobiles today are used by men who work in factories to get to and from work. They are used by plumbers and bricklayers and carpenters to carry them to the job and back again. These men have planned their lives on a basis of motor transportation. Take away their cars and they cannot hold the jobs they now occupy. They would have to look for work within a very short radius of their homes. Motor vehicles have spread the range of labor. With a car, perhaps a $75 used vehicle, the workman can live in the country, on a place purchased for a low price, and work in a city or town five, ten, or even fifteen miles away from his house.

The vast majority of motor vehicles are owned by people whose incomes are below the income tax bracket. Are they fairly included in a campaign to "sock the rich"?

Is the school teacher who has saved and scrimped to buy a used car to carry her back and forth from her classes a member of the idle and pestiferous rich?

Is the country doctor, covering a radius of twenty or thirty miles from his home, winter and summer, good weather and ill, a member of the plutocratic class?

Is the small independent grocer, delivering to a territory embracing perhaps a five-mile line around his store and carrying his customers bravely in spite of the depresson, a rich man, that he should pay 2 per cent. tax on the small truck that enables him to supply his patrons?

We could go on endlessly, but what is the use? Rich owners of automobiles are perhaps one in ten, fifteen, twenty. The vast majority of people who operate cars are working people, or, perhaps we might better say, people who have to earn a living, that makes it inclusive. To these people the car is not a luxury, not even a utility, it is an actual tool of their trade, a piece of equipment that helps or actually permits them to earn a living.

Socking the rich is a pleasant Congressional indoor sport. The rich have only a few votes; the poor don't like 'em, so say the congressmen, "Let's sock 'em, fellers, they ain't got no friends." But the poor, who have to use automobiles, do have votes, and if they can be persuaded to use them intelligently next November, we can at least try a new batch or representatives, who may possibly be a bit thoughtful from having watched the fate of their predecessors.

Trade Association News

Washington A.T.A. Surveys Cost of Service Work

In an endeavor to learn the basis used in quoting charges to, and the average amount received per hour for labor from, the public, as well as the basis used in settlement with, and the average amount paid to, shopmen (productive employees only) per hour of labor by members of the Washington Automotive Trade Association, the writer contacted by telephone all of those members engaged in mechanical service labor sales, and below he gives you the following information:

1. Forty-seven motor vehicle members out of forty-eight (two motor vehicle members were not selling mechanical service labor) are using factory flat rates, and the average received from the customer is $1.81 per hour. The lowest rate is $1.25 per hour and the highest rate is $2.50 per hour.

2. Forty-one motor vehicle members and two exclusive service members render service on an hourly basis, and the average received from the customer is $1.70 per hour. The lowest rate is $1.50 per hour and the highest rate is $2 per hour.

3. Seven of the motor vehicle members do not sell service on an hourly basis under any circumstances, but only on a flat rate or an estimate basis.

4. Twenty-three motor vehicle members pay their shopmen a percentage on the amount of labor received from the customer, and the average is 38 per cent. The lowest percentage is 30 and the highest percentage is 40.

5. By taking 38 per cent. of the average of $1.81, mentioned in paragraph No. 1, it produces the result of 69 cents, which is the average rate per hour received by shopmen who are working on a strictly flat-rate basis.

6. Twenty-nine vehicle members and two exclusive service members pay their shopmen on an hourly basis only, and the average is 65 cents per hour. The lowest rate paid is 45 cents and the highest is 77½ cents.

7. Seventeen motor vehicle members who operate factory flat rate also render service to their customers who request it on an hourly basis. They pay their shopmen a percentage of the amount collected from the customer. The average is $1.83 per hour. The lowest rate is $1.50 per hour and the highest rate is $2 per hour. The average paid the mechanic is 38 per cent. The lowest 30 per cent. and the highest is 40 per cent.

The detailed data that were used in obtaining this information is on file in the association's office, and is subject to inspection by any member who cares to call at the office and do so.

Bright Colors Taking Lead In June Automobile Index

Detroit, May 30.—There's a brighter outlook in the color situation, according to Duco's June automobile color index, as reported by Howard Ketcham. Black's leadership is being seriously challenged by the alacrity of blue's current rebound, he declares.

"From present indications there is good reason to suppose that the trend line representing black and blue will cross next month," writes Ketcham. "There was a marked decline in the demand for black last summer and the juxtaposition of the black and blue trends at this time lends ample credulity to the probability of blue's return to prominence in July as the most favored production color.

"Blue is very much more in demand at this time than it was last summer. All the blues to show popularity this month are of the purple blue variety, with the single exception of Washington medium. This color belongs to the blue purple blue classification. Hathor, a purple blue of low value and weak chroma, has surpassed all other blues in importance, to lead the leaders in this hue.

"It is interesting to note that cable dispatches from the Paris office of the Duco Color Advisory Service predict a pronounced vogue for chalky purple blues. This means blues of weak chroma, such as Cheruit blue, pale blue bonnet blue, etc.

"Green yellows, low in value and of moderate chroma strength, are the best selling colors among the greens at the present time. Standish deep, the new leader, is a green yellow. Other popular colors in the green color family range from green yellow green to blue green blue. Kiltie, an attractive blue green, has become a color of high fashion.

"Brown is advancing in importance at a moderate pace. Browns making their initial appearance in the list of leaders this month include coffee tan, a high value, and strong chroma of yellow red yellow, Worth brown light, a higher value of yellow red than Worth brown; and two median yellow, weak chroma yellows, desert sand and Biscay sand. Leadership in the brown group remains unchanged. Gray and maroon are both moving downward simultaneously. A year ago they were approaching peaks.

"The gray color family is comprised, for the most part, of weak chroma (semi-natural blues) of various values. Soisson, a low value neutral, and Turenne, a low value, weak chroma of blue, are the only additions to the gray group at the present time.

"Bordeaux, a low value, strong chroma red purple red, leads the maroon group, with a sprinkling of red purples.

"The most appealing color arrangements are generally the simplest in composition and involve the use of few hues. A color and its complement in adequate value and chroma balance, affording an effect of restful proportion and blend, is the ideal color arrangement for motor cars or any other commodity."

AUTOMOTIVE SECTION ELECTS 1932 OFFICERS

Vancouver, B. C., May 30.—A. S. Critchley was elected president and R. Heggie, vice-president of the Vancouver (B. C.) branch automotive section of the Retail Merchants' Association at the annual meeting.

The new executive consists of A. Martin, A. Higgins and W. R. Stewart. Division chairmen are R. Heggie, gasoline; J. Penrice, traffic and storage; F. Cameron, tires.

G. D. Cunningham, retiring president, presided, and was the recipient of a vote of thanks for his services during the year.

JENNINGS AUTO SALES CO. IN NEW HOME JUNE 18

Springfield, Ill., May 30.—The Jennings Auto Sales Company, 4th and Jackson Streets, has taken lease on the building formerly occupied by the Capitol Motors, 217-219 South 7th St., and will occupy its new quarters June 18. Extensive improvements will be made upon the new location, designed chiefly to facilitate all services, which will be concentrated on the first floor. The Jennings company handles Ford sales and service and a 100 per cent. service station will be a feature of the accommodations to be provided.

KNUCKEY PROMOTED

San Francisco, May 30.—The Sterling Motor Truck Company of Milwaukee announces the appointment of W. A. Knuckey as vice-president and general manager of its San Francisco branch, located at 8th and Howard Streets. Mr. Knuckey has been associated with the Pageol Motor Truck Company for the past twelve years.

COMMERCIAL CREDIT SAYS ONLY SANEST THINKING ESSENTIAL

(Continued from Page 1)

not trust business men, and neither group believes a politician under oath. The people look in vain for leaders who command their confidence. Having played the game so selfishly, we have lost for the time one supreme essential of a durable democracy—faith in each other based on character.

"The automobile industry can perhaps do more to lead the nation forward than any other industrial group because of the great diversity of its affiliations. If it could take hold of the job in a unified spirit it would set the nation an example that every forward-looking citizen would feel and profit by. But revolutionary changes will have to come into its purpose, its standards and its methods before it can hope to assume such leadership.

"If the automobile industry is to be strong enough for a leading role in our industrial recovery its distributors and dealers must be thorough-going transportation merchants, not merely salesmen for this or that car. They must sell motor mileage with all that that involves—the vehicles, accessories and maintenance required to keep the public rolling, economically, efficiently, reliably, contentedly, to every destination that motor cars were ever meant to reach. The time will never come again, in our opinion, when dealers will be able to make their business pay on new car sales alone. There is much more significance in this point of view than we realize. But the dealer who absorbs it will automatically adopt a new and vastly sounder business program. The retail group must catch this vision of a wider function, and organize accordingly, if it is to lift itself from the morass into which the great crack-up has tossed it."

COMING EVENTS

JUNE

1- 3—**Tulsa, Okla.** American Petroleum Institute, mid-year meeting, Mayo Hotel.
8-11—**State College, Pa.** American Society of Mechanical Engineers, National Oil and Gas Meeting.
12-17—**White Sulphur Springs, W. Va.** Society of Automotive Engineers, summer meeting.
20-24—**Chicago, Ill.** Motor and Equipment Wholesalers Association, Edgewater Beach Hotel, summer conference.
20-24—**Atlantic City, N. J.** American Society for Testing Materials, annual meeting, Chalfonte-Haddon Hall.

JULY

3—**France.** Grand Prix Automobile Race
5- 9—**Southampton, England.** Commercial Car Show.
9-10—**Belgium** Grand Prix Automobile Race.
17—**Germany.** Grand Prix Automobile Race.
20-22—**Llandrindod, Wales.** Commercial Car Show.

OCTOBER

3- 7—**Washington, D. C.** National Safety Council, meeting.
3- 7—**Buffalo, N. Y.** National Metal Exposition, 174th Regiment Armory. W. H. Eisenman, 7016 Euclid Ave., Cleveland, director.
3- 7—**Buffalo, N. Y.** National Metal Congress. Sponsored by American Society for Steel Treating, with cooperation of American Society of Mechanical Engineers, Institute of Metals and Iron and Steel Divisions of American Institute of Mining and Metallurgical Engineers, American Welding Society, Wire Association.
13-22—**London, England.** Olympia Show.

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(Near Delaware)
Buffalo, N. Y.

New Dealer Appointments By States and Makes

ARIZONA

Studebaker—Karns Brothers, Nogales.

CALIFORNIA

Studebaker—Phil Kelley, Calistoga; D. Clyde Downen, Downey.

Willys-Overland — Ralph Auto Company, San Bernardino; Johnston Motor Company, San Luis Obispo; Stewart Motor Sales, Vallejo; A. P. Lish, Fresno.

Nash—William B. Groce, San Rafael; Wood's Garage, San Jacinto.

COLORADO

Willys-Overland—Morrell Brothers, Longmont.

CONNECTICUT

Studebaker—A. F. & C. H. Merrill, Thompsonville.

Willys-Overland—Leon H. Frink, Plainfield; Wilson's Garage, Torrington; Michael's Garage Service, West Hartford.

FLORIDA

Graham-Paige—Robert Brackett, Inc., Pensacola.

GEORGIA

Willys-Overland—Jarrard Motor Company, Gainesville.

ILLINOIS

Studebaker—Chant's Garage, Elmhurst.

Willys-Overland—Huemann Motor Sales, Johnsburg; A. J. Lentz Motor Sales, Inc., Cicero; Northtown Motor Corporation, Chicago; Berwyn Garage, Berwyn; Willys Sales & Service Company, East Alton.

Nash—Jack's Moline Nash Company, Moline.

INDIANA

Willys-Overland—Baxter & Detmer, Rising Sun; Maxey Garage, Stendale.

IOWA

Willys-Overland—Butler Oil Company, Greenfield.

KANSAS

Willys-Overland—Ratliff Auto Repair, Manhattan; H. D. Hill Motor Company, Lawrence; Neu Motor Company, Goodland.

Nash—Coffeyville Nash Company, Coffeyville; the Luehring Motor Company, Leavenworth.

KENTUCKY

Willys-Overland — Hines Service Station, Morgantown.

LOUISIANA

Willys-Overland—Alexandria Auto Company, Inc., Alexandria.

Graham Paige—Shannon Motor Company, New Orleans.

MASSACHUSETTS

Willys-Overland — Milton Heap, Willys-Knight Motors, New Bedford; E. B. Slocomb, Malden; Stein Motor Sales, Holyoke.

Graham-Paige — Balfour Motor Company, Haverhill.

CURRENT PRICES OF PASSENGER CAR MODELS

AUBURN—8-cyl. 127 W. B.
8-100 Standard Models

Business Coupe	945	5 Phaeton Sedan	1,195
5 2-dr. Brougham	995	Speedster	1,195
4 Full Sedan	1,045	7 Sedan (136	
Cus. Type Cabri	1,095	W. B.)	1,245

AUBURN—8-cyl. 127 W. B.
Custom 8-100 Dual Ratio Models

Business Coupe	1,145	5 Phaeton Sedan	1,395
5 2-dr. Brough.	1,195	Speedster	1,395
4 Full Sedan	1,245	7 Sedan (136	
Cus. Type Cabri	1,295	W. B.)	1,445

AUBURN—12-cyl. 133 W. B.
12-160 Standard Models

Business Coupe	1,445	Cus. Type Cabri	1,595
5 2-dr. Brough.	1,495	5 Phaeton Sedan	1,695
4 Full Sedan	1,545	Spedester	1,695

AUBURN—12-cyl. 133 W. B.
Custom 12-160 Dual Ratio Models

Business Coupe	1,645	Cus. Type Cabri	1,795
5 2-dr. Brough.	1,695	5 Phaeton Sedan	1,895
4 Full Sedan	1,745	Speedster	1,895

AUSTIN—4-cyl. 75 W. B.

Business Coupe	330	Runabout	295
4 Sedan	395	Standard Coupe	395

BUICK—8 cyl. 114 W. B.
Models 32-50

2 Business Coupe	935	4 Con. Cp. Rdst.	1,080
5 Sedan	995	5 Spec. Sedan	1,080
4 Spec. Coupe	1,040	5 Con. Phaeton	1,090
5 Vic. Coupe	1,060	5 Spt. Phaeton	1,155

BUICK—8-cyl. 118 W. B.
Models 32-60

2 Bus. Coupe	1,250	5 Sedan	1,310
4 Spec. Coupe	1,290	5 Con. Phaeton	1,310
4 Con. Cp. Rdst.	1,310	5 Spt. Phaeton	1,390

BUICK—8-cyl. 126 W. B.
Models 32-80

5 Vic. Trav. Cp.	1,540	5 Sedan	1,570

BUICK—8-cyl. 134 W. B.
Models 32-90

7 Spt. Phaeton	1,675	5 Club Sedan	1,820
4 C'try Club Cp.	1,740	5 Con. Phaeton	1,830
5 Vic. Coupe	1,785	7 Sedan	1,955
4 Con. Cp. Rdst.	1,805	7 Limousine	2,055
5 Sedan	1,805		

CADILLAC—V-8, Series 355 B. 134 W. B.
Fisher Bodies

2 Coupe	2,795	2 Roadster	2,895
5 Stan. Sedan	2,895	2 Con. Coupe	2,945

CADILLAC—V-8, Series 355 B. 140 W. B.
Fisher Bodies

5 Coupe	2,995	7 Sedan	3,145
5 Stan. Phaeton	2,995	5 Spt. Phaeton	3,245
5 Spec. Sedan	3,045	7 Imperial	3,295
5 Town Sedan	3,095	5 A. W. Phaeton	3,495
5 Spec. Phaeton	3,095		

CADILLAC—V-8, Series 353 B. 140 W. B.
Fleetwood Bodies

5 Sedan	3,395	5 Town Cabriol	4,095
5 Town Coupe	3,395	7 Town Cabriol	4,245
7 Sedan	3,545	7 Lim. Brough	4,245
7 Limousine	3,745		

CADILLAC—V-12. Series 370 B. 134 W. B.
Fisher Bodies

2 Coupe	3,495	2 Roadster	3,595
5 Stan. Sedan	3,595	2 Con. Coupe	3,645

CADILLAC—V-12. Series 370 B. 140 W. B.
Fisher Bodies

5 Coupe	3,695	7 Sedan	3,845
5 Stan. Phaeton	3,695	5 Spt. Phaeton	3,945
5 Spec. Sedan	3,745	7 Imperial	3,995
5 Town Sedan	3,795	5 A. W. Phaeton	4,195
5 Spec. Phaeton	3,795		

CADILLAC—V-12. Series 370 B. 140 W. B.
Fleetwood Bodies

5 Sedan	4,095	5 Town Cabriol	4,795
5 Town Coupe	4,095	7 Town Cabriol	4,945
7 Sedan	4,245	7 Lim. Brough	4,945
7 Limousine	4,445		

CADILLAC—V-16. Series 452 B. 143 W. B.
Fisher Bodies

2 Coupe	4,495	2 Roadster	4,595
5 Stan. Sedan	4,595	2 Con. Coupe	4,645

CADILLAC—V-16. Series 452 B. 149 W. B.
Fisher Bodies

5 Stan. Phaeton	4,695	5 Spt. Phaeton	4,945
5 Spec. Phaeton	4,795	5 A. W. Phaeton	5,195

CADILLAC—V-16. Series 452 B. 149 W. B.
Fleetwood Bodies

5 Sedan	5,095	5 Town Cabriol	5,795
5 Town Coupe	5,095	7 Town Cabriol	5,945
7 Sedan	5,245	7 Lim. Brough	5,945
7 Limousine	5,445		

CHEVROLET—6-cyl. 109 W. B.

Roadster	445	De Luxe Coach	515
Sport Roadster	485	Sport Coupe	535
Standard Coupe	490	5 Coupe	575
Coupe (5 win.)	490	Sedan	590
Phaeton	495	Cabriolet	595
Coach	495	Special Sedan	615
De Luxe Coupe	510	Landau Phaeton	625

CHRYSLER—6-cyl. 116 W. B.

2 Business Coupe (5 wire or wood wheels)	865	5 Sedan (5 wire or wood wheels)	895
2-4 Roadster (R.S.) (5 wire or wood wheels)	885	5 Phaeton (5 wire wheels)	915
2-4 Coupe R.S.) (5 wire or wood wheels)	885	2-4 Con. Coupe (R.S.) (5 wire or wood wheels)	935
		5 Con. Sedan (6 wire or wood wheels)	1,125

CHRYSLER—8-cyl. 125 W. B.

2-4 Coupe (R.S.) (5 wire or wood wheels)	1,435	2-4 Con. Coupe (R.S.) (5 wire or wood wheels)	1,495
5 Coupe (5 wire or wood wheels)	1,475	5 Con. Sedan (6 wire or wood wheels)	1,695
5 Sedan (5 wire or wood wheels)	1,475		

CHRYSLER IMPERIAL—8-cyl. 135 W. B.

2-4 Coupe (R.S.) (5 wire or wood wheels)	1,925	5 Con. Sedan (6 wire or wood wheels)	2,195
5 Sedan (5 wire or wood wheels)	1,945		

CHRYSLER IMPERIAL—8-cyl. 146 W. B.
Custom Models

5 Cl. Cpld. Sedan (6 wire or wood wheels)	2,895	7 Sedan Limousine (6 wire or wood wheels)	3,295
7 Sedan (6 wire or wood wheels)	2,995	5 Phaeton (6 wire or wood wheels)	3,395
2-4 Con. Coupe Roadster (6 wire or wood wheels)	3,295	5 Con. Sedan (6 wire or wood wheels)	3,595

CORD—8-cyl. 137½ W. B.

Sedan	2,395	Cabriolet	2,495
Brougham	2,395	Phaeton Sedan	2,595

DE SOTO—6-cyl. 113 W. B.
Standard Models

2 Bus. Roadster	675	4 Coupe (R. S.)	735
2 Bus. Coupe	695	5 Sedan	775
5 Brougham	695	5 Phaeton	775

DE SOTO—6-cyl. 113 W. B.
Custom Models

4 Roadster	775	2-4 Con. Coupe	845
Custom Coupe	790	5 Con Sedan	975
5 Sedan	835		

DE VAUX—6-cyl. 114 W. B.

2 Coupe	725	Custom Coupe (R. S.)	845
Standard Coupe (R. S.)	775	Custom Sedan	845
Standard Sedan	775	Con. Cus. Coupe	895

DODGE—6-cyl. 114¼ W. B.
D. L. Models

2 Business Coupe (5 wire or wood wheels, R. M.)	795	5 Sedan (5 wire wheels, 1 F. W.)	859.50
2 Business Coupe (5 wire or wood wheels, 1 F. W.)	809.50	2-4 Coupe (R.S.) 6 wire or wood wheels, 2 F.W.)	865
2 Business Coupe (6 wire wheels, 2 F. W.)	825	5 Sedan (6 Dem. wood wheels, 2 F. W.)	875
2-4 Coupe (R.S.) 5 wire or wood wheels, R. M.)	835	5 Sedan (6 wire wheels, 2 F.W.)	875
5 Sedan (5 Dem. wood wheels, R. M.)	845	5 Sedan 5 disc wheels, R. M.)	885
5 Sedan (5 wire wheels, R.M.)	845	2-4 Con. Coupe (5 wire or wood wheels, R. M.)	895
		2-4 Con. Coupe (6 wire or wood wheels, 2 F.W.)	925

DODGE—8-cyl. 122 W. B.
D. K. Models

2-4 Coupe R.S.) (5 wood or wire wheels, R.M.)	1,115	5 Sedan 6 Dem. wood wheels, 2 F. W.)	1,180
5 Sedan (5 Dem. wood wheels, R. M.)	1,145	5 Sedan (6 wire wheels, 2 F.W.)	1,180
5 Sedan (5wire wheels, R.M.)	1,145	5 Coupe (6 wire or wood wheels, 2 F. W.)	1,180
5 Coupe (5 wire wheels, R.M.)	1,145	2-4 Con. Coupe (6 wire or wood wheels, 2 F. W.)	1,220
2-4 Coupe (R.S.) (6 wire or wood wheels, 2 F. W.)	1,150	5 Con. Sedan	1,395

ESSEX—6-cyl. 113 W. B.
Standard Series

2 Business Coupe	660	5 2-dr. Sedan (3 windows)	735
5 Coach	665		
4 Coupe	705		

ESSEX—6-cyl. 113 W. B.

Business Coupe	695	Standard Sedan	775
Coach	705	Special Coupe	795
Town Sedan	745	Special Sedan	845
4 Coupe	745	Con. Coupe	845

FORD—V-8. 106 W. B.

Roadster	460	De Luxe Coupe	525
Coupe	490	Fordor Sedan	590
Phaeton	495	Victoria	600
Tudor Sedan	500	Cabriolet	610
De L. Roadster	500	De Luxe Fordor Sedan	645
Sport Coupe	535	Con. Sedan	650
De L. Phaeton	545		
De Luxe Tudor Sedan	550		

FORD—4-cyl. 106 W. B.

Roadster	410	Le Luxe Coupe	525
Coupe	440	Fordor Sedan	540
Phaeton	445	Victoria	550
Tudor Sedan	450	Cabriolet	560
De L. Roadster	450	De Luxe Fordor Sedan	595
Sport Coupe	485	Con. Sedan	600
De L. Phaeton	495		
De Luxe Tudor Sedan	500		

FRANKLIN—6-cyl. 132 W. B.
Supercharged Airman

5 Sedan	2,345	Vic. Brougham	2,445
Coupe	2,345	7 Sedan	2,545
Con. Coupe	2,390	Speedster	
Club Brougham	2,395	wire wheels)	2,545
Oxford Sedan	2,395	Limousine	2,695

FRANKLIN—12-cyl. 144 W. B.

5 Sedan	3,885	7 Sedan	3,985
Club Brougham	3,885	7 Limousine	4,185

GRAHAM—6-cyl. 113 W. B.

Town Sedan	765	Sedan	795

GRAHAM—8-cyl. 123 W. B.
Standard

2 Coupe	1,095	4 Coupe (R.S.)	1,145
5 Sedan	1,145		

GRAHAM—8-cyl. 123 W. B.
De Luxe

2 Coupe	1,120	4 Coupe (R.S.)	1,220
5 Sedan	1,220	4 Con. Coupe	1,270

HUDSON—8-cyl. 119 W. B.
Standard Series

Business Coupe	995	Standard Sedan	1,095
Coach	1,025	Special Coupe	1,115
4 Coupe	1,045	Con. Coupe	1195
Town Sedan	1,050		

HUDSON—8-cyl. 126 W. B.
Sterling Series

Sur. Sedan	1,275	Special Sedan	1,295

HUDSON—8-cyl. 132 W. B.
Major Series

Touring Sedan	1,445	Club Sedan	1,495
Brougham	1,495	7 Sedan	1,595

HUPMOBILE—216. 6-cyl. 116 W. B.

5 Phaeton	795	Com. Coupe	895
4 Roadster	795	5 Sedan	895
4 Con. Cabriolet	895		

HUPMOBILE—222. 8-cyl. 122 W. B.

2 Coupe (R.S.)	1,295	5 Victoria	1,360
5 Sedan	1,295	5 Cab. Roadster	1,395

HUPMOBILE—226. 8-cyl. 126 W. B.

2 Coupe (R.S.)	1,595	5 Victoria	1,660
5 Sedan	1,595	2 Cabriolet Road.	1,695

LA SALLE—V-8. Series 345 B. 130 W. B.
Fisher Bodies

2 Coupe	2,395	2 Con. Coupe	2,545
5 Sedan	2,495	5 Town Coupe	2,545

LA SALLE—V-8. Series 345 B. 136 W. B
Fisher Bodies

5 Town Sedan	2,645	7 Imperial	2,795
7 Sedan	2,645		

LINCOLN—8-cyl. 136 W. B.
Standard Models

2 Roadster	2,900	2 Coupe	3,200
4 Phaeton	3,000	5 Victoria	3,200
Town Sedan (2 win.)	3,100	7 Sedan	3,300
5 Sedan	3,200	7 Limousine	3,350

LINCOLN—12-cyl. 145 W. B.
Standard Models

4 Spt. Phaeton	4,300	4 Spt. Phae. (Tonneau cowl)	4,500
7 Spt. Touring	4,300	5 Sedan	4,600
5 Coupe	4,400	7 Sedan	4,700
4 Town Sedan (2 or 3 win.)	4,500	7 Limousine	4,900

LINCOLN—12-cyl. 145 W. B.
Custom Models

2 Con. Road. (R.S.) Le Baron	4,600	5 Con. Sedan Dietrich	6,400
2 Coupe (Dietrich)	5,000	5 Spt. Berline, Dietrich	6,500
2 Coupe, Judkins	5,100	2 Spt. Roadster, Murphy	6,800
2 Coupe (R.S.) Dietrich	5,150	7 Brougham, Brunn	7,000
2 Coupe (R.S.) Judkins	5,350	Town Brougham, Willoughby	7,100
5 Berline, Judkins	5,700	5 Cabriolet (N. C. or S. C.) Brunn	7,200
7 Limousine, Willoughby	5,900	5 Town Cabriolet Le Baron	7,400
5 Con. Victoria, Waterhouse	5,900		

MARMON—8-125. 125 W. B.
Standard Models

5 Sedan (5 wire wheels)	1,395	2 Con. Coupe (5 wire wheels)	1,445
2 Coupe (R. S.) (5 wire wheels)	1,395		

MARMON—8-125. 125 W. B.
De Luxe Models

5 Sedan (6 wire wheels)	1,545	2 Con. Coupe (6 wire wheels)	1,595
2 Coupe (R.S.) (6 wire wheels)	1,545		

MARMON—16-Cyl. 145 W. B.

5 Sedan	5,700	2 Con. Coupe	5,850
2 Coupe (R. S.)	5,700	7 Sedan	5,900
5 2-dr. Coupe	5,800	5 Con. Sedan	5,950
5 Cl Cpl. Sedan	5,800	7 Limousine	6,100

NASH—6-cyl. 116. W. B.
Big Six Models

2 Coupe	777	5 4-dr. Sedan	840
5 4-dr. Town Sedan	825	5 2-dr. Con. Sedan	935
4 Coupe	825	4 Con. Roadster	895

NASH—8-cyl. 121 W. B.
Standard Eight Models

2 Coupe	965	5 4-dr. Sedan	1,015
5 4-dr. Town Sedan	978	4 Con. Roadster	1,055
4 Coupe	1,015	5 2-dr. Con. Sedan	1,095

NASH—8-cyl. 128 W. B.
Special Twin Ignition Eight Models

2 Coupe	1,270	5 4-dr. Sedan	1,320
4 Coupe	1,320	5 Victoria	1,395
4 Con. Road	1,395	5 4-dr. Con Sedan	1,475

NASH—8-cyl. 133 W. B.
Advanced Twin Ignition Eight Models

5 4-dr. Sedan	1,595	5 Victoria	1,785
4 Coupe	1,695	5 4 dr. Con. Sedan	1,875
4 Con. Roadster	1,795		

NASH—8-cyl 142 W. B.
Ambassador Twin Ignition Eight Models

5 4-dr. Sedan	1,855	7 Limousine	2,055
5 4dr. Brough	1,855	7 Sedan	1,955

OLDSMOBILE—6-cyl. 116½ W. B.
F-32 Models

2 dr. Sedan	875	4 dr. Sedan	955
Bus Coupe	875	Con Roadster	955
Sport Coupe	925	Patrician Sedan	990

OLDSMOBILE—8-cyl. 116½ W. B.
L-32 Models

2 dr. Sedan	975	4 dr. Sedan	1,055
Bus. Coupe	975	Con. Roadster	1,055
Sport Coupe	1,025	Patrician Sedan	1,090

PACKARD—8-cyl. 128 W. B.
Light Eight

5 Sedan	1,750	2-4 Coupe Road.	1,795
5 Coupe Sedan	1,795	2-4 Coupe	1,795

PACKARD—8-cyl. 130 W. B.
Standard Eight

5 Sedan			2,250

PACKARD—8-cyl. 137 W. B.
(Standard Eight

7 Touring	2,500	5 Club Sedan	2,775
2-4 Coupe	2,595	7 Sedan	2,835
5 Phaeton	2,650	5 Spt. Phaeton	2,950
2-4 Coupe Road.	2,650	7 Sedan Limou.	2,985
5 Sedan	2,685	5 Con. Victoria	3,195
5 Coupe	2,745	5 Con. Sedan	3,250

PACKARD—8-cyl. 142 W. B.
De Luxe Eight

2-4 Coupe	3,150	7 Touring	3,395
5 Sedan	3,245	5 Club Sedan	3,395
2-4 Coupe Road.	3,250	5 Spt. Phaeton	3,590
5 Phaeton	3,290	5 Con. Victoria	3,825
5 Coupe	3,350	5 Con. Sedan	3,895

PACKARD—8-cyl. 147 W. B.
De Luxe Eight

7 Sedan	3,495	7 Sedan Limou	3,695

PACKARD—Twin Six. 142 W. B.

2-4 Coupe	3,650	5 Club Sedan	3,895
5 Sedan	3,745	7 Touring	3,895
2-4 Coupe Road.	3,750	5 Spt. Phaeton	4,090
5 Phaeton	3,790	5 Con. Victoria	4,325
5 Coupe	3,850	5 Con. Sedan	4,395

(Recent price changes in bold face)

PACKARD—Twin Six. 147 W. B.

7 Sedan	3,995	7 Sedan Limou	4,195

PACKARD—8-cyl. 142-147 W. B.
Le Luxe Custom Models

Spt. Phaeton (Dietrich)	5,500	Sedan Limou	6,550
Stationary Coupe (Dietrich)	5,600	A. W. Brougham	6,550
Con. Roadster (Dietrich)	5,750	Sport Sedan	6,550
Con. Victoria (Dietrich)	5,850	Cebriolet Sedan Limousine	6,550
Con. Sedan (Dietrich)	5,950	A. W. Town Car	6,550
A. W. Sport Cabriolet	6,550	A. W. Cabriolet	6,550
		A. W. Town Car Landaulet	6,950
		A. W. Sport Landaulet	6,950

PACKARD—Twin Six. 142-147 W. B.
Custom Models

Sport Phaeton (Dietrich)	6,000	Con. Sedan (Dietrich)	6,450
Stationary Coupe (Dietrich)	6,100	A. W. Town Car	7,050
Con. Roadster (Dietrich)	6,250	A. W. Cabriolet	7,050
Con. Victoria (Dietrich)	6,350	A. W. Town Car Landaulet	7,450
		A. W. Landaulet	7,450

PEERLESS—8-cyl. 125 W. B.
De Luxe Master

5 Sedan	2,320	Club Sedan	2,370
2 Coupe	2,320	Cabriolet	2,430

PEERLESS—8-cyl. 138 W. B.
De Luxe Custom

5 Sedan	2,985	7 Sedan	3,135
5 Club Sedan	3,035	7 Limousine	3,335

PIERCE ARROW—54. 137 W. B.

5 Club Brougham	2,850	5 Club Sedan	3,150
5 Sedan	2,985	5 Tourer	3,150
4 Coupe	2,985	5 Club Berline	3,350
4 Con. Coupe Roadster	3,100	5 Spt. Phaeton	3,350
		5 Con. Sedan	3,450

PIERCE ARROW—54. 142 W. B.

7 Sedan	3,185	7 En. Dr. Limousine	3,450
7 Tourer	3,450		

PIERCE ARROW—54. 142 W. B.

7 Sedan	3,985	7 En. Dr. Limousine	4,250
7 Tourer	4,250		

PIERCE ARROW—52. 142 W. B.

5 Sedan	4,295	5 Club Berline	4,600
5 Club Sedan	4,400		

PIERCE ARROW—52. 147 W. B.

7 Sedan	4,585	7 En. Dr. Limousine	4,800

PIERCE ARROW—51. 147 W. B.
Custom Models

Con. Victoria (Le Baron)	5,200	En. Dr. Limousine (Le Baron)	6,200
Coupe (Le Baron) (metal back)	5,300	Town Brougham (Brunn)	6,700
Coupe (Le Baron) (leather back)	5,600	Town Car (Brunn)	6,700
Club Sedan (Le Baron)	5,700	Town Cabriolet (Brunn)	7,200
Con. Sedan (Le Baron)	5,700	En. Dr. Lim. Brougham (Brunn)	7,200
Con. Sedan (Le Baron)	6,100		

PLYMOUTH—4-cyl. 112 W. B.

Bus. Roadster	495	4-dr. 3 win. Sedan	635
Bus. Coupe	565	Con. Coupe	645
Spt. Roadster (R. S.)	595	7 Sedan (121-in. W. B.)	725
Spt. Phaeton	595	Con. Sedan	785
Coupe (R. S.)	610		

PLYMOUTH—4-cyl. *150 O. A.
Thrift Models

5 2-dr. Sedan	495	5 4-dr. Sedan	575

PONTIAC—6-cyl. 114 W. B.

2 Stan. Coupe	635	5 4-dr. Sedan	725
5 2-dr. Sedan	645	2 Con. Coupe	765
4 Coupe (R.S.)	715	5 Custom Sedan	795

PONTIAC—V-8. 117 W. B.

2 Stan. Coupe	845	Con. Coupe	945
2 Dr. Sedan	845	4 Dr. Sedan	945
4 Coupe (R.S.)	925	Custom Sedan	1,025

REO—MODEL S—117 W. B.
Flying Cloud

5 Stan. Sedan	995	Stan. Convertible Coupe	1,045
Coupe	995		

REO—8-25. 8-cyl. 125 W. B.

Coupe	1,565	Sedan	1,565
Victoria	1,565		

REO ROYALE—8-cyl. 131 W. B.

Sedan Victoria	1,785	Coupe	1,785

REO ROYALE—8-cyl. 135 W. B.
Custom Models

Sedan	2,445	Con. Coupe	2,445
Coupe	2,445		

ROCKNE—6-65. 6-cyl. 110 W. B.
Standard Models

2 Coupe	585	5 Sedan	635
Coach	595	Conv. Roadster	675
4 Coupe	620	Conv. Sedan	695

ROCKNE—6-65. 6-cyl. 110 W. B.
De Luxe Models

2 Coupe	630	5 Sedan	680
Coach	640	Conv. Roadster	720
4 Coupe	665	Conv. Sedan	740

ROCKNE—6-75. 6-cyl. 114 W. B.
Standard Models

2 Coupe	685	Conv. Roadster	775
4 Coupe	720	Conv. Sedan	795
5 Sedan	735		

ROCKNE—6-75. 6-cyl. 114 W. B.
De Luxe Models

2 Coupe	730	Conv. Roadster	820
4 Coupe	765	Conv. Sedan	840
5 Sedan	780		

STUDEBAKER—6-cyl. 117 W. B.

2 Coupe	840	4 Regal Coupe	995
4 Coupe	890	5 Regal St. Regis Brougham	1,020
5 St. Regis Brougham	915	5 Regal Sedan	1,020
5 Sedan	915	4 Regal Con. Roadster	1,020
4 Con. Roadster	915		
2 Regal Coupe	945	5 Regal Con. Sedan	1,090
5 Con. Sedan	985		

STUDEBAKER—8-cyl. 117 W. B.
Dictator Models

2 Coupe	980	4 Regal Coupe	1,135
4 Coupe	1,030	5 Regal St. Regis Brougham	1,155
5 St. Regis Brougham	1,050	5 Regal Sedan	1,155
5 Sedan	1,050	4 Regal Con. Roadster	1,155
4 Con Roadstr.	1,050		
2 Regal Coupe	1,085	5 Regal Con. Sedan	1,230
5 Con. Sedan	1,125		

STUDEBAKER—8-cyl. 125 W. B.
Commander Models

4 Coupe	1,350	5 Regal Sedan	1,550
4 Con. Roadstr.	1,445	4 Regal Con. Roadster	1,550
5 Sedan	1,445	5 Con. Sedan	1,560
5 St. Regis Brougham	1,445	5 Regal Con. Sedan	1,660
4 Regal Coupe	1,455		
5 Regal St. Regis Brougham	1,550		

STUDEBAKER—8-cyl. 135 W. B.
President Models

4 Coupe	1,690	4 State Con. Roadster	1,855
5 St. Regis Brougham	1,750	5 Con. Sedan	1,880
5 Sedan	1,750	7 Sedan	1,890
4 Con. Roadstr.	1,750	5 State Con. Sedan	1,995
4 State Coupe	1,795	7 Limousine	1,990
5 State St. Regis Brougham	1,855	7 State Sedan	1,995
5 State Sedan	1,855	7 State Limous	2,095

STUTZ—6 cyl. 121½ W. B.
LAA Series

5 Coupe	1,895	Club Sedan	1,895
5 Sedan	1,895	Cab. Coupe	2,185
2 Coupe	1,895		

STUTZ—8 cyl. 134½ W. B.
SV-16 Challenger Series

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SUNDSTRAND LISTS IMPROVEMENTS

The Sundstrand Machine Tool Company informs us that during the present period of sub-normal production, it has been preparing for the revival by making many improvements in its stub lathe and rigidmil machines. The improvements in the eight-inch stub mill, which have been gradually made are listed as follows:

Compact, heavy base contains motor compartment, coolant reservoir and chip pan; bed and headstock in one-piece rigid casting; chips now drop straight down through larger opening; front slide, larger, heavier, stronger; larger quill for tailcenter; heavier tailstock, rigidly supported above as well as below center line; tailstock secured to bed solidly by two big studs; standard front carriage now has provision for mounting taper or forum turning attachment; heavier, stronger, more rigid front carriage; more space between rear slide and headstock; new drive for carriage feeds; improves design and makes possible more chip room through bed; stronger rear slide; has new in-and-out adjustment; handwheel 15½ inches diameter moves front carriage 4 inches per revolution; pick-off gears for front carriage feed changes; pick-off gears for speed changes; carriage can pass headstock—a unique lathe feature; provision for draw rods and pneumatic chucks or fixtures; conveniently located clutch lever; worm-and-wheel drive to spindle; rigid support for overarm; big, strong spindle at convenient height.

Overarm, another distinctive stub lathe feature. Quick-acting, powerful clamp for tailcenter quill. One readily accessible adjustment for both spindle-bearings. Clutch and brake is conveniently located, readily accessible, easily adjusted and well protected.

Motor compartment in base, with provision for adjusting drive tension. Pick-off gears for rear slide feeds.

The changes in the rigidmil are as follows:

Bigger one-piece frame casting. Larger and heavier feed box, with increased range. Larger coolant reservoir and chip screen. Stronger and better feed-trip mechanism. Welded steel extension, with gaskets, bolted to base. Keeps chips and coolant off of floor. Improved overarm braces, clamps and mounting. Spindle has selected anti-friction bearings throughout as standard equipment. Improved spindle head. Special highspeed drive available for application to standard head at any time. New quill-adjustment. New grease retainers. Heavier elevating screw with improved mounting and accessibility. More powerful main drive. New feed screw. Much bigger and stronger. New anti-backlash nut available as extra equipment. New guard, protects table-control dogs. More space and better facilities for handling chips.

Convenient tool-trays at each end of table. Improved and simplified clamping for spindle head. Standard rapid-traverse rates practically doubled. Improved coolant-pump, mounting, drive, strainer and piping.

Centralized controls for clutch, feed and head-elevation. Convenient table-height.

Spindle can be horizontal or vertical. Special heads can be designed to meet a multitude of different requirements at relatively low cost. Table can be reciprocating (six lengths, two widths) or rotary (two sizes, continuous feed, or alternating feed and automatic rapid traverse). Heavy rectangular overarm. Strong, simple; lends itself readily to application of special attachments.

Motor drive mounting provides maximum accessibility, ventilation and capacity for mounting widest range of sizes at lowest cost and minimum weight.

PORTABLE PIPE MACHINE

The Oster Manufacturing Company is putting out a portable pipe machine, with a capacity of from ⅛ to 2 inch pipes. The machine is motor driven and has an extra capacity down to ¼-inch sizes. It may be had with or without an oil pump and a base containing an oil sump. It may also be had with or without a pipe cut-off attachment.

Dies are of the segment type, held rigidly in a holder. A separate die head is used for each size of pipe, obviating loss of time in changing dies, as the die head is simply slipped on two vertical studs on the carriage. When cutting off the die head is swung out of the way to give clearance.

A multiple V-belt is used for driving from the motor through a spiral micarta pinion and thence to a spiral gear on the worm shaft. The final drive to the spindle is a triple thread worm mounted on Timken bearings automatically oiled.

A three-jawed, quick-acting universal scroll chuck is mounted on the front end of the spindle, and a three-jawed universal centering chuck controlled by a hand wheel is mounted on the rear of the spindle. The motor is universal, variable speed and reversible. It can be operated from a lighting socket.

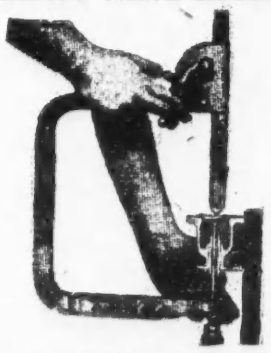
NEW WHITAKER BRANCH

New York, May 30.—The Whitaker Battery Supply Company, manufacturer of battery cables, has opened a new branch facotry at 2449 Valdez Ave., Oakland, Cal., with H. S. Atherton in charge as manager.

MAJOR SPECIFICATIONS AND MECHANICAL DETAILS

Make and Model	Weight—5-P. Sedan	Wheel Base	Engine Make	Thermostat Used	Valve Arrangement	Cylinders	Bore and Stroke	Piston Disp.	Compression Ratio	Tax H. P.	Brake, H.P. and Peak R. P. M.	Pist. Make or Material	No. Main Br.	Oil Purifier	Fuel Cleaner	Carburetor	Air Cleaner
Auburn 8-100	——	127-136	Lyc	Dole	L	8	3 x4¾	268.6	2.56	28.8	118@3400	*Alum	5	Pur	No	Str	No
Auburn 12-160	——	133	Lyc	Dole	O	12	3⅛x4¼	391.0	5.50	46.8	160@3400	*Alum	4	Pur	Ste	Str	—
Austin	§1150	75	Own	No	L	4	2.2x3	45.6	5.10	7.8	13@3000	Alum	2	No	No	Til	No
Buick 32-50	3450	114	Own	Bish-Bab	O	8	2⅞x4¼	230.4	4.65	27.61	78@3200	CI	5	AC	AC	Mar	AC
Buick 32-60	3980	118	Own	Bish-Bab	O	8	3⅛x4⅝	272.6	4.63	30.02	90@3000	CI	5	AC	AC	Mar	AC
Buick 32-80	4450	126	Own	Bish-Bab	O	8	3⅛x5	344.8	4.40	35.12	104@2900	CI	5	AC	AC	Mar	AC
Buick 32-90	4565	134	Own	Bish-Bab	O	8	3⅛x5	344.8	4.40	35.12	104@2900	CI	5	AC	AC	Mar	AC
Cadillac 355 B	4885	134-140	Own	Har	L	8	3⅜x4⅛	353.0	5.38	36.4	115@3000	CI	3	AC	AC	Own	AC
Cadillac 370 B	5175	134-140	Own	Har	O	12	3⅛x4	368.0	5.30	46.9	135@3400	CI	4	Cuno	AC	DL	AC
Cadillac 452 B	5625	143-149	Own	Har	O	16	3 x4	452.0	5.36	57.5	165@3400	CI	5	Cuno	AC	DL	AC
Chevrolet	2770	109	Own	No	O	6	3 1/16x3¾	194	5.20	26.3	60@3000	CI	3	No	Yes	Car	AC
Chrysler 6	3120	116	§Own	Yes	L	6	3¼x4½	223.9	5.35	25.35	82@3400	*Alum	4	Pur	Yes	B & B	Yes
Chrysler 8	3860	125	§Own	Yes	L	8	3⅛x4½	298.6	5.20	33.80	100@3400	*Alum	5	Pur	Yes	Str	Yes
Chrysler Imp. 8	——	135	§Own	Yes	L	8	3⅛x5	384.8	5.20	39.20	125@3200	*Alum	9	Pur	Yes	Str	Yes
Chrysler Imp. 8 cus.	——	146	§Own	Yes	L	8	3⅛x5	384.8	5.20	39.20	125@3200	*Alum	9	Pur	Yes	Str	Yes
Cord (Fr. Wh. D.)	4620	137½	Lyc	Dole	L	8	3¼x4½	298.6	5.25	33.8	115@3300	*Alum	5	Pur	AC	Sch	No
De Soto Six	3008	113	§Own	Yes	L	6	3¼x4¼	211.5	5.35	25.35	75@3400	*Alum	4	Pur	Yes	B & B	Yes
De Vaux 6-80	2810	114	Con	Dole	L	6	3⅜x4	214.7	5.20	27.34	75@3600	Alum	4	—	Yes	Til	AC
Dodge Six D L	3084	114¼	§Own	Yes	L	6	3¼x4⅜	217.7	5.35	25.35	79@3400	Alum	4	Pur	Yes	Car	Yes
Dodge Eight D K	3488	122	§Own	Yes	L	8	3¼x4¼	282.1	5.20	33.80	90@3400	Alum	5	Pur	Yes	Str	Yes
Essex-Gr. Su. 6 Std.	2870	113	†Own	No	L	6	2⅞x4¾	193.0	5.50	20.7	70@3200	Alum	3	No	Ste	Mar	AC
Ford A	2357	106	Own	No	L	4	3⅞x4¼	200.5	4.60	24.03	50@2600	Alum	3	—	—	Zen	—
Ford V8	†2447	106	Own	No	L	8	3 1/16x3¾	220.0	5.50	30.0	65@3400	Alum	3	—	—	DL	—
Franklin Airman	——	132	*Own	Ful	O	6	3½x4¾	——	5.10	——	100@3100	*Alum	7	Pur	Yes	Str	Yes
Franklin V-12	——	144	*Own	Ful	O	12	3¼x4	398.0	5.12	——	150@3100	*Alum	7	Pur	Yes	Str	Yes
Graham 6	3205	113	Own	Yes	L	6	3⅛x4½	207	5.45	23.4	70@3200	*Alum	7	No	AC	Sch	AC
Graham 8	3665	123	Own	Bish-Bab	L	8	3⅛x4	245.4	6.50	31.25	90@3400	*Alum	5	AC	AC	DL	AC
Hudson Gr. 8 Std.	3270	119-126-132	†Own	No	L	8	3 x4½	254.1	5.80	28.8	101@3600	Alum	5	No	Ste	Mar	AC
Hupmobile 216	3115	116	Own	Bish-Bab	L	6	3⅜x4¼	228.1	5.00	27.34	75@3200	*Alum	4	**	Ste	Str	AC
Hupmobile 222	3580	122	Own	Bish-Bab	L	8	2⅞x4⅝	250.7	5.40	27.61	93@3200	Alum	5	Pur	Ste	Str	AC
Hupmobile 226	3755	126	Own	Bish-Bab	L	8	3 1/16x4¾	279.9	5.47	30.10	103@3200	Alum	5	Pur	Ste	Str	AC
La Salle 345 B	4840	130-136	Own	Har	L	8	3⅜x4⅛	353.0	5.38	36.4	115@3000	CI	3	AC	AC	Own	AC
Lincoln V-8	5430	136	Own	Yes	L	8	3½x5	384.0	5.23	39.2	125@2900	Alum	5	No	AC	Str	AC
Lincoln V-12	5750	145	Own	Yes	L	12	3¼x4½	448.0	5.25	50.7	150@3400	Alum	7	No	AC	Str	AC
Marmon 8	3500	125	Own	Yes	L	8	3¼x4¾	315.2	5.50	33.8	125@3400	Alum	5	Flo	AC	Str	AC
Marmon 16	5360	145	Own	Pines	O	16	3⅛x4	490.8	5.75	62.5	200@3400	Alum	5	†	AC	Str	AC
Nash Big Six	3200	116	Own	Bish-Bab	L	6	3⅛x4⅜	201.3	5.10	23.4	70@3000	*Alum	7	Pur	AC	Str	AC
Nash Stand. Eight	3400	121	Own	Bish-Bab	L	8	3 x4⅜	247.4	5.10	28.8	85@3200	*Alum	9	Pur	AC	Str	AC
Nash Spec. Eight	3870	128	Own	Bish-Bab	O	8	3½x4¼	260.8	5.25	31.2	100@3400	*Alum	9	Pur	AC	Str	AC
Nash Adv. Eight	4350	133	Own	Bish-Bab	O	8	3⅝x4½	322.0	5.25	36.4	125@3600	*Alum	9	Pur	AC	Str	AC
Nash Ambas. Eight	4510	142	Own	Bish-Bab	O	8	3⅝x4½	322.0	5.25	36.4	125@3600	*Alum	9	Pur	AC	Str	AC
Oldsmobile F-32	3035	116½	Own	No	L	6	3⅛x4⅛	213.3	5.80	26.3	74@3200	CI	4	AC	AC	Str	AC
Oldsmobile L-32	3165	116½	Own	No	L	8	3 x4¼	240.3	5.90	28.8	87@3350	CI	5	AC	AC	Str	AC
Packard Twin Six	5225	142-147	Own	Yes	L	12	3⅞x4	445.5	6.00	56.0	160@3200	*Alum	4	Yes	Yes	Own	AC
Packard Stan. 8	4570	130-137	Own	Yes	L	8	3⅛x5	320.0	6.00	32.5	110@3200	*Alum	9	Yes	Yes	Own	AC
Packard De L. 8	5045	142-147	Own	Yes	L	8	3½x5	384.8	6.00	39.2	135@3200	*Alum	9	Yes	Yes	Own	AC
Packard Light 8	4115	127¾	Own	Yes	L	8	3⅛x5	320.0	6.00	32.50	110@3200	*Alum	9	Yes	Yes	Own	AC
Peerless De L. Mas.	4521	125	Con	Bish-Bab	L	8	3⅜x4½	322	5.00	36.45	115@3200	*Alum	5	Pur	AC	Sch	AC
Peerless De L. Cus.	4766	138	Con	Bish-Bab	L	8	3⅜x4½	322	5.00	36.45	120@3200	*Alum	5	Pur	AC	Sch	AC
Pierce-Arrow 54	4819	137-142	Own	Pines	L	8	3½x4¾	366	5.05	39.2	125@3000	*Alum	9	Pur	Ste	Str	AC
Pierce-Arrow 52	5080	142-147	Own	Pines	L	12	3⅜x4	429	5.05	54.6	150@3200	*Alum	7	Pur	Ste	Str	AC
Pierce-Arrow 53	5395	137-142	Own	Pines	L	12	3¼x4	398	5.05	50.7	140@3200	*Alum	7	Pur	Ste	Str	AC
Plymouth	2875	112	§Own	No	L	4	3⅜x4¾	196.1	4.90	21.03	65@3200	Alum	3	Yes	AC	B & B	Yes
Pontiac 6	2870	114	Own	Yes	L	6	3 1/16x3⅞	200.0	5.10	26.3	65@3200	CI	3	No	AC	Mar	Yes
Pontiac V-8	3225	117	Own	Yes	H	8	3 1/16x3⅜	251.0	5.20	37.8	85@3200	CI	3	No	AC	Mar	Yes
Reo Fly. Cloud "S"	3405	117	Own	Yes	L	6	3⅛x5	230.0	5.30	23.4	80@3200	Lo-Ex	7	Yes	Yes	Zen	Yes
Reo Royale Cust.	4650	135	Own	Pines	L	8	3⅜x5	358	5.30	36.48	125@3300	Alum	9	Han	AC	Sch	Own
Reo Royale	4375	131	Own	Pines	L	8	3⅜x5	358	5.30	36.48	125@3300	Alum	9	Han	AC	Sch	Own
Reo 8-25	4050	125	Own	Yes	L	8	3 x4¾	268.6	5.37	28.8	90@3300	*Alum	5	Han	V S	Sch	Un
Rockne 6-65	2595	110	Own	Dole	L	6	3⅛x4⅛	189.8	5.00	23.4	66@3200	CI	4	No	AC	Str	No
Rockne 6-75	3000	114	Own	Dole	L	6	3¼x4⅛	205.3	5.00	25.4	72@3200	CI	4	Own	AC	Str	No
Studebaker 6-55	3170	117	Own	Dole	L	6	3¼x4⅝	230.0	5.00	25.4	80@3200	CI	4	No	Ste	Str	No
Studebaker Dict. 62	3240	117	Own	Bish-Bab	L	8	3 1/16x3¾	221.0	5.00	30.0	85@3200	CI	9	Pur	Ste	Str	AC
Studebaker Com. 71	3545	125	Own	Bish-Bab	L	8	3 1/16x4¼	250.4	5.20	30.0	101@3200	*Alum	9	Pur	Ste	Str	AC
Studebaker Pres. 91	4260	135	Own	Dole	L	8	3½x4⅜	337.0	5.10	39.2	122@3200	*Alum	9	Han	Ste	Str	AM
Stutz LAA	4383	127½	Own	No	O	6	3⅜x4½	241.5	5.50	27.3	85@3150	*Alum	7	Pur	AC	Zen	Un
Stutz SV-16	4885	134½-145	Own	No	O	8	3⅜x4½	322	5.50	36.4	113@3300	*Alum	9	Pur	AC	Zen	AM
Stutz DV 32	5281	134½-145	Own	Bish-Bab	O	8	3⅜x4½	322	5.10	36.4	156@3900	*Alum	9	Pur	Ste	Str	AC
Willys-Ov'land 6-90	2814	113	Own	Yes	L	6	3¼x3⅞	193.0	5.26	25.35	65@3400	CI	4	No	AC	Til	Til
Willys-Ov'land 8-88	3250	121	Own	Yes	L	8	3⅛x4	245.4	5.26	31.25	80@3200	CI	5	No	AC	Til	AC
Willys-Knt. 66-D	3775	121	Own	Yes	K	6	3⅜x4¾	255.0	5.50	27.34	87@3200	*Alum	7	Pur	Til	Til	AC
Willys-Knight 95	3031	113	Own	Yes	K	6	2⅞x4⅜	177.9	5.55	20.70	60@3400	*Alum	7	Pur	AC	Til	AC

AMMCO VALVE LIFTER



A new valve lifter, with patented, self-adjusting, spring jaws for servicing all overhead valve motors and practically all "L" head motors, is announced by the Automotive Maintenance Machinery Company.

The Ammco valve lifter is built to save time and make valve lifting an easy operation. Spring jaws quickly adjust themselves to any size washers. One hand operates the tool, leaving the other free to remove pins or other types of valve keepers. Lock is provided to hold the spring at any desired position.

The Ammco standard model 10 valve lifter is priced at $5. Two other special models are also made—Model 20 with valve spring compressor for trucks and tractors and Model 30 for V-type motors. Special offset jaws and formed or blank valve spring holders are also available.

ACE MULTIPLE SPINDLE DRILL HEADS

A. H. Pearson, Detroit, is placing on the market a new Ace multiple spindle drill head of which replacement of the traditional gear train by sprockets and a driving chain is a feature. Three hardened sprockets are mounted on the drive shaft. From these the power is transmitted through a high safety chain to each two driven spindles. It is stated that this lessens the load on the individual drive. It is claimed that the head will drive six 25/64 inch drills at 1,200 r. p. m., with a chain speed of 700 r. p. m.

The oil seal used is claimed to allow enough lubricant to reach the lower bearings but to obviate leakage. The seal consists of a bronze disk that rotates with the drill spindle and is mounted above and in contact with the radial ball bearing in the lower case of the head body. Though there are no oil holes, enough lubricant of medium weight is drawn through by capillary attraction to supply the needs of the parts.

Variations in load distribution are claimed to be endless. The number of steps of driving and driven sprockets are only limited by the weight of the head body. A take up device makes it possible to compensate for chain slackness.

NEW DODGE DEALERSHIP

Hartford, Conn., May 30.—Goldie Motors, Inc., 565 Connecticut Boulevard, East Hartford, for which incorporation papers were recently filed, has become a Hartford dealer for Plymouth and Dodge. The concern's quarters, recently occupied, are those formerly used by the Colonial Auto Company. Israel Goldstein is president and treasurer, and his brother, Joseph, is used car sales manager.

JOBBING FIRM MOVES

Bridgeport, Conn., May 30.—The Motor Equipment Company, automobile parts and supplies, has moved from 685 Fairfield Ave. to new quarters at Wall and Water Streets.

OF PRESENT AMERICAN PASSENGER CAR MODELS

Make and Model	Front End Drive	Ignition System	Gen. and Starter	Clutch	Transmission: Make	Transmission: Speeds	Transmission: Type	Universals	Rear Axle	Ratio	Brakes	Steering Gear	Springs Rear	Spring Shackles	Chassis Lubric.	Tires
Auburn 8-100	Chain	Del-R	*Del-R-S	Long	D	3	SM-LGS-F	U	Col	*4.70	M	Ross	S 56¾	Own	Bijur	17x6.00
Auburn 12-160	Link	Del-R	*Del-R-S	Long	D	3	SM-LGS-F	M	Col ½	*4.55	Bendix	Ross	S 56¾	Own	Bijur	*17x6.00
Austin	Gear	Aut-L	*Aut-L	Rock	WG	3	—	S	Sal ½	5.25	M	Say-B	Cant	Own	Al-Z	18x3.75
Buick 32-50	Tex	Del-R	Del-R	*Own	O	3	SM-BW-F	O	Own ½	4.60	Own	Sag	S 56	Tryon	Al-Z	18x5.50
Buick 32-60	Tex	Del-R	Del-R	*Own	O	3	SM-BW-F	O	Own ¾	4.54	Own	Sag	S 55¼	Own	Al-Z	18x6.00
Buick 32-80	Tex	Del-R	Del-R	*Own	O	3	SM-BW-F	O	Own ¾	4.27	Own	Sag	S 58⅞	Own	Al-Z	18x7.00
Buick 32-90	Tex	Del-R	Del-R	*Own	O	3	SM-BW-F	O	Own ¾	4.27	Own	Sag	S 58⅞	Own	Al-Z	18x7.00
Cadillac 355 B	Morse	Del-R	Del-R	Own	O	3	SM	S	Own ¾	4.60	Own M	Sag	S 58	Own	Alem	17x7.00
Cadillac 370 B	Morse	Del-R	Del-R	Own	O	3	SM	S	Own ¾	4.80	Own M	Sag	S 58	Own	Alem	17x7.50
Cadillac 452 B	Morse	Del-R	Del-R	Own	O	3	SM	S	Own ¾	4.64	Own M	Sag	S 60	Own	Alem	18x7.50
Chevrolet	Gear	Del-R	*Del-R	Own	O	3	SM-F	—	Own ½	4.10	M	Own	S 54	Own	Alem	18x5.25
Chrysler 6	Chain	Del-R	Del-R	*—	O	3	— F	—	Own ½	4.60	H	Own	S 53⅜	—	Alem	18x5.50
Chrysler 8	Chain	Del-R	Del-R	*—	O	4	— F	—	Own ½	4.30	H	Gem	S 54⅝	—	Alem	17x6.50
Chrysler Imp. 8	Chain	Del-R	Del-R	*—	O	4	— F	—	Own ½	4.10	H	Gem	S 57½	—	Al-Z	17x7.00
Chrysler Imp. 8 Cus.	Chain	Del-R	Del-R	*—	O	4	— F	—	Own ½	4.10	H	Gem	S 57½	—	Al-Z	17x7.50
Cord (Fr. Wh. Dr.)	Link	Del-R	*Del-R	Long	D	3	—	*	Col F	4.80	H	Gem	S 62	Own	Bijur	18x7.00
De Soto Six	Chain	Del-R	Del-R	*Own	O	3	O-F	—	Own ½	4.62	H	Own	S 53⅜	—	Alem	18x5.25
De Vaux 6-80	Morse	Aut-L	*Aut-L	Borg	W	3	—	S	‡AD ½	4.40	M	†W	S 54¼	Tryon	Al-Z	19x5.25
Dodge Six D L	Chain	Del-R	—	—	O	3	— F	—	Own ½	4.60	H	Own	S 54⅞	—	Al-Z	18x5 50
Dodge Eight D K	Chain	Del-R	Del-R	*—	O	3	— F	—	Own ½	4.10	H	Gem	S 55	—	Al-Z	18x6.00
Essex Gr. Su. 6	Morse	Aut-L	*Aut-L-S	*Own	O	3	SM-WG-F	S	Own ½	4.63	Bendix	Gem	S 54⅛	Own	Alem	18x5.25
Ford A	Var-G	Own	*Own	Own	O	3	SM	O	Own ¾	4.11	M	Gem	S-Tr 39	Own	Al-Z	18x5.25
Ford V8	Var-G	Own	*Own	Own	O	3	SM	O	Own ¾	4.11	M	Gem	S-Tr	Own	Al-Z	18x5.25
Franklin Airman	Chain	Del-R	*Del-R-S	—	W	†3	SM-BW-F	M	— ⅛	4.73	H	Gem	El 42	—	Al-Z	19x6.50
Franklin V-12	Chain	Del-R	*Del-R-S	Long	W	3	SM-BW-F	M	Col ½	4.45	H	Ross	S 60	Fafnir	Al-Z	17x7.50
Graham 6	Link	Del-R	Del-R	Long	WG	3	WG-F	U	Sal ½	4.45	H	Ross	S 54	ERS	Al-Z	17x5.50
Graham 8	Link	Del-R	Del-R	Long	WG	3	SM-WG-F	S	Sal ½	4.30	H	Ross	S 54	ERS	Al-Z	17x6.00
Hudson Greater 8	Morse	Aut-L	*Aut-L-S	*Own	O	3	SM-WG-F	S	Own ½	†4.63	Bendix	Gem	S 54⅛	Own	Alem	*17x6.00
Hupmobile 216	Chain	Aut-L	*A-L-S-‡	Borg	WG	3	SM-WG-F	M	Spic ½	4.54	M	Ross	S 53	Tryon	Al-Z	18x5.50
Hupmobile 222	Morse	Aut-L	*A-L-S-‡	Borg	WG	3	SM-WG-F	U	Own ½	4.36	M	Gem	S 57½	Rub-B	Al-Z	17x6.00
Hupmobile 226	More	Aut-L	*A-L-S-‡	Long	D	3	SM-DG-F	U	Own ½	4.36	M	Gem	S 57½	Rub-B	Al-Z	17x6.50
La Salle 345 B	Morse	Del-R	Del-R	Own	O	3	SM	S	Own ¾	4.60	Own M	Sag	S 58	Own	Alem	17x7.00
Lincoln V-8	Chain	Aut-L	*Aut-L	Long	O	3	SM-F	S	Own F	4.58	*Bendix	Own	S 62	Own	Alem	18x7.00
Lincoln V-12	Chain	Aut-L	*Aut-L	Long	O	3	SM-F	S	Own F	4.58	*Bendix	Own	S 62	Own	Alem	18x7.50
Marmon 8	Diam	Del-R	*Del-R	*—	D	3	SM	S	Spic ½	4.08	Bendix	Ross	S 57	Tryon	Alem	18x6.00
Marmon 16	Diam	Del-R	Del-R	Rus	M	3	SM	S	Spic ½	3.78	Bendix	Ross	S 59½	**	Alem	18x7.00
Nash Big Six	Chain	Aut-L	*A-L-S-‡	Borg	O	3	SM-DG-F	O	Own ½	4.70	M	Ross	S 54	ERS	Alem	18x5.25
Nash Stand. Eight	Chain	Aut-L	*A-L-S-‡	Borg	O	3	SM-DG-F	O	Own ½	4.44	M	Ross	S 54	ERS	Alem	18x5.50
Nash Spec. Eight	Chain	*Aut-L	*A-L-S-‡	Borg	O	3	SM-DG-F	O	Own ½	4.43	Bendix	Gem	S 55¾	*	Bijur	17x6.50
Nash Adv. Eight	Chain	*Aut-L	*A-L-S-‡	Borg	O	3	SM-DG-F	O	Own ½	4.50	Bendix	Gem	S 57⅛	*	Bijur	18x7.00
Nash Ambas. Eight	Chain	*Aut-L	*A-L-S-‡	Borg	O	3	SM-DG-F	O	Own ½	4.50	Bendix	Gem	S 57⅛	*	Bijur	18x7.00
Oldsmobile F-32	Chain	Del-R	Del-R	Borg	M	3	SM-BW-F	S	Own ½	4.56	Bendix	Sag	S 54½	Tryon	Al-Z	17x6.00
Oldsmobile L-32	Chain	Del-R	Del-R	Borg	M	3	SM-BW-F	S	Own ½	4.77	Bendix	Sag	S 54½	Tryon	Al-Z	17x6.00
Packard Twin Six	Morse	Aut-L	*Dyn	*Long	O	3	SM	M	Own ½	4.69	M	Own	S 60½	Own	Bijur	18x7.50
Packard Stan. 8	Morse	N E	*Dyn	Long	O	3	SM	M	Own ½	4.66	M	Own	S 60½	Own	Bijur	6.50x19
Packard De L. 8	Morse	N E	*Dyn	Long	O	3	SM	M	Own ½	4.66	M	Own	S 60½	Owr	Bijur	7.00x19
Packard Light 8	Morse	N E	*Dyn	*Long	O	3	SM	S	Own ½	4.66	M	Own	S 56	Own	Alem	17x6.50
Peerless De L. Mas.	Morse	Aut-L	*Aut-L	Rock	WG	3	WG-F	S	Sal ½	4.45	Bendix	Ross	S 60	Rub B	Alem	31x6.00
Peerless De L. Cus.	Morse	Aut-L	*Aut-L	Rock	WG	3	WG-F	S	Sal ½	4.80	Bendix	Ross	S 60	Rub B	Alem	31x6.50
Pierce-Arrow 54	Chain	Del-R	*Del-R-S	Long	O	3	SM-F	S	Own ½	4.42	Bendix	Ross	S 61	Faf	Myers	18x6.50
Pierce-Arrow 52	Chain	Del-R	*Del-R-S	Long	O	3	SM-F	S	Own ½	4.42	Bendix	Ross	S 61	Faf	Myers	18x7.00
Pierce-Arrow 53	Chain	Del-R	*Del-R-S	Long	O	3	SM-F	S	Own ½	4.58	Bendix	Ross	S 61	Faf	Myers	18x7.00
Plymouth	Var	Del-R	Del-R	*Own	O	3	O-F	O	Own ½	4.33	H	Own	S 53⅜	—	Al-Z	18x5.25
Pontiac 6	Chain	Del-R	Del-R	Own	M	3	SM-BW-F	M	Own ½	4.55	Bendix	Sag	S 54	Inlox	Al-Z	18x5.25
Pontiac V-8	Link	Del-R	Del-R	Own	M	3	SM-BW-F	M	Own ½	4.22	Bendix	Sag	S 54½	Inlox	Al-Z	17x6.00
Reo Fly. Cloud "S"	Chain	Del-R	*Del-R-S	Long	O	3	SM-F	S	Own ½	4.60	H	Ross	S 55	Tryon	AL-Z	17x5.50
Reo Royale Cust.	Morse	Del-R	Del-R-‡	Long	O	3	SHG	U	Own ½	4.07	H	Ross	S 57½	Own	Far	6.50x18
Reo Royale	Morse	Del-R	Del-R-‡	Long	O	3	SHG	U	Own ½	4.07	H	Ross	S 57½	Own	Al-Z	6.50x18
Reo 8-25	Link	Del-R	*Del-R	Long	O	3	SHG	U	Own ½	4.90	H	Ross	S 55¾	Own	Al-Z	17x6.50
Rockne 6-65	Morse	Aut-L	*Aut-L-S	Borg	WG	3	SM-BW-F	M	Spic ½	4.55	Bendix	Ross	S 54	Tryon	Al-Z	18x5.25
Rockne 6-75	Chain	Aut-L	*Aut-L-S	Long	WG	3	SM-BW-F	M	Own ½	4.73	Bendix	Ross	S 54	Tryon	Al-Z	18x5.50
Studebaker 6-55	Chain	Del-R	*Del-R-S	Long	O	3	SM-BW-F	S	Own ½	4.27	Bendix	Ross	S 54	Tryon	Alem	18x5.50
Studebaker Dict. 62	Cel	Del-R	*Del-R-S	Long	O	3	SM-BW-F	S	Own ½	4.73	Bendix	Ross	S 54	Tryon	Alem	18x5.50
Studebaker Com. 71	Cel	Del-R	*Del-R-S	Long	O	3	SM-BW-F	S	Own ½	4.73	Bendix	Ross	S 56	Faf	Alem	18x6.00
Studebaker Pres. 91	Var-G	Del-R	*Del-R-S	Borg	O	3	SM-BW-F	S	Own ½	4.31	Bendix	Ross	S 60	Faf	Alem	18x6.50
Stutz LAA	Link	Del-R	Del-R	Borg	D	4	—	U	Sal ½	5.10	H	Gem	S 60	Own	Bijur	19x6.50
Stutz SV-16	Link	Del-R	Del-R	Long	M	3	SM	M	Tim ½	4.75	H	Gem	S 62¾	Own	Bijur	18x7.00
Stutz DV-32	Link	Del-R	Del-R	Long	M	3	SM	M	Tim ½	4.50	H	Gem	S 62¾	Own	Bijur	18x7.00
Willys-Ov'land 6-90	Link	Aut-L	*Aut-L	Own	O	3	O-F	S	Own ½	4.60	Bendix	Own	S 51	Tryon	Alem	18x5.25
Willys-Ov'land 8-88	Link	Aut-L	*Aut-L	Borg	O	3	O-F	S	Own ½	4.40	Bendix	Ross	S 56	Tryon	Alem	18x5.50
Willys-Kni. 66-D	Link	Aut-L	*Aut-L	Rock	O	3	O-F	S	Own ½	4.18	Bendix	Ross	S 56	Tryon	Alem	17x6.00
Willys-Knight 95	Link	Aut-L	*Aut-L	Own	O	3	O-F	S	Own ½	4.89	Bendix	Gem	S 51	Tryon	Alem	18x5.50

KEY TO ABBREVATIONS

Weight—‡Austin standard 2 passenger coupe. Stutz DV 145-inch wheel base weighs 5,352. †Tudor sedan.

Engine Make—Con. Continental; Lyc. Lycoming. *Air-cooled with spot temperature control. †Thermo syphon water circulation. ‡Floating power.

Thermostat—Bish-Bab, Bishop & Babcock, Dole, Dole Valve Co., Chicago, Ill.; Ful, Fulton Co.; Har, Harrison; Pines, Pines Winterfront Var, various makes.

Valve Arrangement—L, L head; H, horizontal. O, overhead; K, sleeve valve; LV, V-type L head.

Piston Material—*Alum, aluminum with invar struts. Alum, aluminum alloy; CI, cast iron; S. St, semi-steel; Lo-Ex, Aluminum Corporation of America.

Oil Purifier—Wal, Wall; Han, Handy; AC, AC Spark Plug Company; Ste, Stewart-Warner; Ski, Skinner; Flo, Floato; Cuno, Cuno Engineering Corp; Pur, Purolator. *Using both Floato and Skinner. †Using AC with Floato attachment. **Using both AC and Purolator.

Fuel Cleaner—AC, AC Spark Plug Co.; Gas, Gascolator; Ste, Stewart-Warner; Til, Tillotson; V-S, Van Sicklen.

Carburetor—Sch, Wheeler Schebler; Zen, Zenith; Mar, Marvel; Car, Carter; Str, Stromberg; DL, Detroit Lubricator; Til, Tillotson; B&B, Ball & Ball.

Air Cleaner—AC, AC Spark Plug Company; AM, Air Maze; Un, United; Til, Tillotson.

Front End Drive—Link, Link Belt; Tex, Texolite; Cel, Celeron; Diam, Diamond Chain; Morse, Morse Chain Company; Var, various makes of chains; Var-G various makes of gears.

Ignition, Generator and Starter—Aut-L, Auto-Lite; A-L, Auto-Lite; Del-R, Delco-Remy; Dyn, Owen-Dyneto Corp.; N E, North East. *Nash.—Indicates twin ignition. *Bendix starter used. S—Startix equipped. ‡Startix optional equipment.

Clutch—Borg, Borg & Beck; Br-L, Brown-Lipe; Rock, Rockford Machine; Long, Long Clutch Company; Rus, Russell Mfg. Co. *Bendix Clutch Control.

Transmission Make—D, Detroit Gear; WG, Warner Gear Company; M, Muncie Gear Company; O, Own; N, New Process Gear Corp.; W, Warner Corp. *Franklin Transcontinent models are equipped with both Warner and Detroit 3 or 4 speed gear sets, according to body type.

Transmission Type—DG, Detroit Gear & Machine Co.; LGS, The LGS Corp.; F, Free Wheeling; SM, Synchro Mesh; BW, Borg-Warner; NP—New Process Gear Corp.; WG, Warner Gear Co.; SHG, Synchronized Herringbone Gear.

Universals—U, Detroit Universal Products; S, Spicer Mfg. Corp.; O, Own, M, Mechanics Universal Joint Company. *Cord using Detroit Universal Products and Mechanical Universal Joint Co.

Rear Axle—Col, Columbia; Sal, Salisbury; Spic, Spicer Mfg. Corp.; Tim, Timken; N.P., New Process Gear Corp.; ½, Semi-floating; ¾, ¾ floating; F, Full floating; ‡Adams used on custom models.

Ratio—*Dual ratio optional; Hudson 132-in. wheel base models have rear axle ratio of 5:10.

Brakes—H, hydraulic; M, mechanical; Bendix, Bendix Brake Corp. *Equipped with Vacuum Booster.

Steering Gear—Gem, Gemmer; Ross, Ross Gear and Tool Company; Sag, Saginaw. Say-B, Saylor-Beall Manufacturing Company; War, Warner; N.P., New Process Gear Corp. †Ross used on custom models.

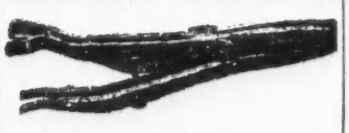
Rear Springs—S, semi-elliptic; El, full elliptic; Cant, semi-cantilever; S-Tr, semi-transverse.

Spring Shackles—Tryon, Willys-Morrow Company; Rub B, Rubber Shock Insulator Company; Faf, Fafnir Bearing Company; ERS, Eaton Products, Inc.; Inlox—Inland Mfg. Co.; *Tryon, front. ERS, rear. *Own, front, ERS, rear. **Using both Rubber-B and Fafnir.

Chassis Lubricator—Alem, Alemite; Al-Z, Alemite Zerk; Bijur, Bijur Lubricating Corp.; Far, Farval. Myers—Chassis Lubricating Co.

Tires—Auburn 12, custom models equipped with 17x6.50. *Hudson 132-in. wheel base models equipped with tires 17x6.50. Stutz 145-inch wheelbase models have 20x7.00 tires.

HEAVY DUTY VALVE LIFTER



The Sunnen Products Company of St. Louis has added a new heavy-duty valve lifter, with "extra height" adjustment.

The Sunnen heavy-duty valve lifter was designed primarily for late engines with very heavy springs. It is especially convenient in working on Continental engines, where the block casting hides the valve assembly.

According to the manufacturer, this new tool is a great deal stronger than the average valve lifter of this type.

The handles are longer, so that they will extend out beyond the manifold.

A convenient adjustment gives an extra inch of lift.

The lifter locks positively at any height.

CIRCULAR SLITTING SAW SHARPENER

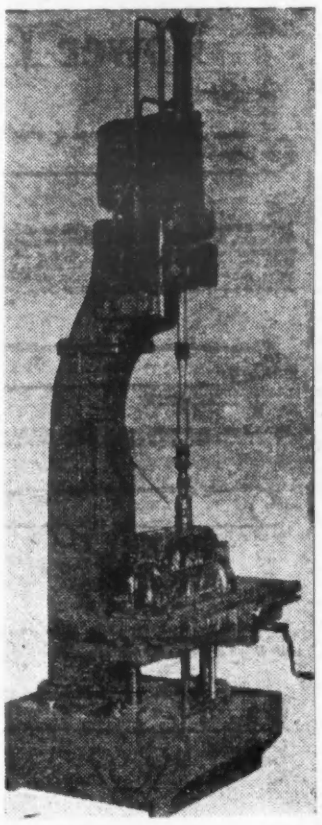
Samuel C. Rogers & Co. is putting out a bench type milling or slitting saw-sharpening machine. This is designed for use on metal saws two to sixteen inches in diameter.

The machine is described as being fully automatic in operation and may be had for either motor or belt drive.

An index or ratchet feed plate is provided. With this attachment a worn or damaged saw can be sharpened or recut with perfect teeth of any desired shape, with uniform spacing, regardless of the condition of the teeth before. The index plate makes it possible automatically to shape and space teeth as small as two inches in diameter. The grinding wheel arbor is fitted with SKF ball bearings. The principal moving parts are provided with adjustments for taking up wear. The floor space of the machine is 20 by 22 by 28 inches and the shipping weight 250 pounds.

CLASSIFIED ADVERTISEMENTS IN THE AUTOMOTIVE DAILY NEWS BRING RESULTS

SINGLE SPINDLE HONING, LAPPING MACHINE



The Barnes Drill Company is putting out a honing machine of light design with simplified hydraulic equipment for spindle reciprocations, yet without dwell or shock. The machine is comparatively low in price, yet has great utility for a limited range of light work.

It embodies self-oiling all geared construction, having anti-friction bearings throughout.

The six-splined spindle and its telescopic sleeve extension are made of chrome nickel steel, heat-treated and hardened. All gears are of high-grade alloy steel, heat-treated. The six-splined spindle is driven by six-splined hub, running on two Timken roller bearings.

This honer will be furnished geared to any one speed of spindle rotations desired and the hydraulic control will be adjusted at factory for one rate of spindle feed or reciprocations, both rotations and reciprocations being figured as best to suit the job.

To facilitate lift-out, the spindle is equipped with telescoping extension sleeve. (Morse taper No. 4 is standard in sleeve unless some other method of mounting hone is required.) This sleeve has approximately 5 inches of travel, and may be locked at upper position for holding hone out of work and locked at lower position to properly locate hone in the cylinder and hold in the extended position during the working stroke.

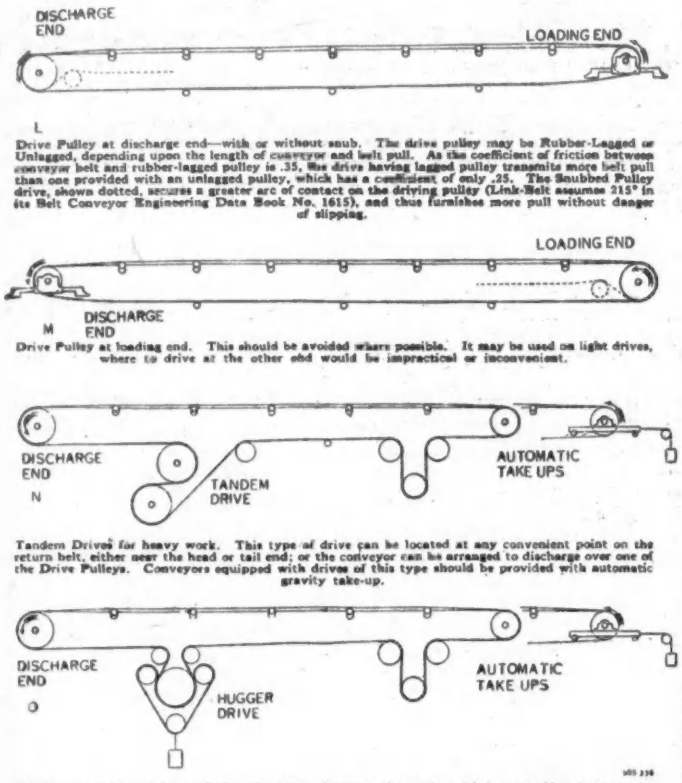
For honing cast iron, the recommended practice is to rotate the hone at a peripheral speed of 250 to 300 feet per minute approximately, while the stroke feed should be about 50 lineal feet per minute.

Base contains compartments for coolant reservoir and for an essential, efficient filter. Coolant pump is mounted in column and is shaft-driven. Top of base has covers for compartments and two crosswise finished bosses, upon which fixture may be mounted if table is not supplied. No fixture is furnished, but this may be supplied at extra price, according to design required. Solid box-type table with proper height or raising screw-type of table furnished at additional cost. Table with lateral travel and indexing control may also be supplied per price list.

Motor drive recommended is of 2 horse power, speed 1,800 r. p. m. Standard motor, ball-bearing-type, arranged for vertical application. Push-button switch with inching button should be used for convenience in starting, inching and stopping machine. Motor and electrical equipment to be supplied by customer.

Production - - Engineering - - Factory

Material Handling and Power Transmission


DISCHARGE END
LOADING END
L
Drive Pulley at discharge end—with or without snub. The drive pulley may be Rubber-Lagged or Unlagged, depending upon the length of conveyor and belt pull. As the coefficient of friction between conveyor belt and rubber-lagged pulley is .35, the drive having lagged pulley transmits more belt pull than one provided with an unlagged pulley, which has a coefficient of only .25. The Snubbed Pulley drive, shown dotted, secures a greater arc of contact on the driving pulley (Link-Belt assumes 215° in its Belt Conveyor Engineering Data Book No. 1615), and thus furnishes more pull without danger of slipping.
LOADING END
DISCHARGE END
M
Drive Pulley at loading end. This should be avoided where possible. It may be used on light drives, where to drive at the other end would be impractical or inconvenient.
DISCHARGE END
TANDEM DRIVE
AUTOMATIC TAKE UPS
N
Tandem Drives for heavy work. This type of drive can be located at any convenient point on the return belt, either near the head or tail end; or the conveyor can be arranged to discharge over one of the Drive Pulleys. Conveyors equipped with drives of this type should be provided with automatic gravity take-up.
DISCHARGE END
HUGGER DRIVE
AUTOMATIC TAKE UPS
O
The Hugger Drive can be applied in the same manner as the tandem drive, except that it cannot be placed at the end of the conveyor. It is more efficient than the tandem drive, and has no differential slipping action between the belt and pulley, which is so destructive to the belt.

The Link Belt Company has just released another of its data sheets on material handling and power transmission. This sheet takes up the subject of designing the belt conveyor and types of drive.

The publication is as follows:

Handling large quantities of material, such as coal, coke, sand, stone, dirt, chemicals, grain, etc., at low cost is work to which the belt conveyor is admirably suited. Its large capacity and small power consumption result in a very low cost per ton of material handled.

The proper design and wise selection of the parts that make up the belt conveyor determine the efficiency or the success of the installation. The most important elements are:

1. The belt to carry the material.
2. The idlers, to support the belt.
3. The drive, through which power is transmitted to the belt.
4. The loading conditions, or method of delivering material to the belt.
5. The tripper, or other means of discharging material from the belt.

Each element 1, 2, 3 and 5 is made up in various types, and each type of drive, idler, belt or tripper has a proper use.

Since the belt is the only part which comes into direct contact with the load, it is the only part which is subjected to the wear and tear of handling the material. It is, therefore, the most expensive part of the conveyor from a maintenance standpoint. Every means should be taken to select a belt which is the most economical in the long run, and to protect it from unnecessary injury and wear, thus adding to its life of service.

The loading conditions are important, as everything should be arranged to have the material reach the belt in the same direction and speed of motion as the belt has, and with as little drop and impact as practicable, especially where the material is abrasive, or sharp pointed and heavy.

Belts should be specified according to the conditions under which they are to operate, and weight of fabric, number of plies and thickness and grade of rubber covers must be properly combined to secure the most economical service.

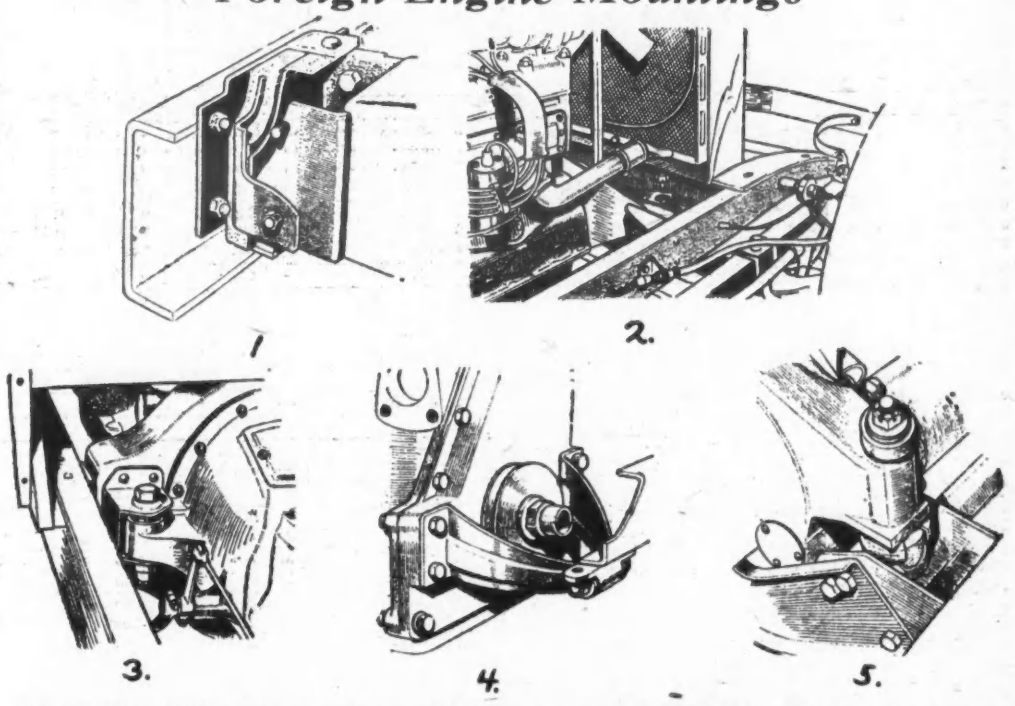
Anti-friction idlers are recommended in all cases when long life of equipment and low maintenance costs are given due consideration.

The use of the proper type of drive may mean the saving in cost of an extra thickness of conveyor belt or an important reduction in belt stress. The proper relation between belt stress and thickness and grade of rubber cover should be given careful consideration in the selection of the type of drive and the grade of belt.

Both the drive and the idlers determine the efficiency of the belt conveyor and the number of plies or thickness of conveyor belt necessary to transmit the belt tension or pull required in driving it.

In the accompanying diagrams the expression "drive pulley" indicates the pulley which gives motion to the conveyor belt, whether it be the head or tail pulley or located at some intermediate point.

Foreign Engine Mountings



ENGINE MOUNTINGS used on various popular foreign cars, principally British. It is interesting to compare these with our own methods of absorbing engine vibration. 1. One of the engine mountings of the Vauxhall "Silent Eighty," in which the steel plates are embedded in rubber to avoid any metal-to-metal connection. 2. The front end of the six-cylinder Mathis engine is carried by a transverse plate of springy alloy steel, bolted to frame brackets at each end. 3. Another Continental example: A Berliet design which in a hinge-pin type of mounting is used, fitted with a Silentbloc bush. 4. Single-point front mounting of the new Austin Ten-Four engine, using springy steel arms and a Silentbloc bush. 5. One of the rubbered connections employed to carry the six-cylinder Morris-Oxford and Morris Major engines in the frame

ROTOR KUT BROACH

The La Pointe Machine Tool Company is marketing a rotor kut tool with polyangular cutting or broaching sections. It is designed to finish broach forged, pierce or cored holes from the rough without preliminary boring or reaming.

The cutting sections of this machine are preferably arranged in groups or series, all cutting units in each series being out of axial alignment with each other, but evenly spaced about the periphery of the broach.

Broaches may be had for cutting splines, internal gears and square, rectangular or irregular holes. It is claimed that this tool will last longer and remove stock with a shorter broach.

MERCURY SWITCHES

Providence Electric Controls, Inc., is offering a full line of improved mercury switches from one to 100 amperes. In the units having a rating up to five amperes, special heat resisting contacts are employed, but in the larger switches arcing takes place over a ceramic surface to eliminate danger of tube breakage.

This switch operates entirely by magnetic control. There is a gas-filled tube containing two mercury pools and a floating displacement member is placed within the field of the electrical coil. When the coil is energized the floating piece within the tube is drawn down to displace a given amount of mercury, causing a rise in the level of one of the mercury pools to make the contact.

UNIVERSAL ELECTRIC DRILLS

The Independent Pneumatic Tool Company is offering a new line of universal electric drills in quarter and half inch sizes. Both these drills embody aluminum and ball bearing construction. The quarter inch size with grip switch is known as the USA and the half inch size with a side switch is known as the URA.

The USA has a speed of 2,500 r. p. m. and weighs eight pounds. The URA has a speed of 500 r. p. m. and weighs 14½ pounds. The URA model is equipped with a side handle and combination spade handle and breast plate.

The armature of these drills is of alloy steel with pinions milled directly on them to obviate vibration. The armature cores are of the open straight slot type to permit use of separate form wound coils laid into slots without being flattened. Commutators are independent of the shafts and are balanced and tested at 1,100 volts before assembly.

Ball bearings of the closed back type are used throughout the tools and are lubricated from the gear case. The switch is of the double pole type, breaking both sides of the line at the same time. The mechanism is stated to be fully protected from dust and dirt. The switch on the USA is operated by a long lever, so arranged that it can be changed either to safety first or a positive switch by pressing the lock button on the side of the gun type handle.

A case and handle of aluminum are provided, in one piece with rib work on the inside. The field case, gear case and centerplace have hardened and ground steel bushings into which the outer races of the bearings fit. Both ends of the spindle are provided with oversize ball bearings.

OXWELD PRICES REDUCED

The Linde Air Products Company announces that substantial reductions in the prices of Oxweld welding and cutting blowpipes are now in effect.

One of the major items of apparatus affected by this change is the Oxweld type W-17 welding blowpipe, noted for its wide range of utility. A low pressure injector type of blowpipe, it may be used with any source of acetylene, producing the soft, low velocity flame so essential to good welding results and maintaining the desired type of flame without further adjustment during the welding operation. Both one-piece and detachable-tip welding heads are available.

Along with other price reductions in Oxweld blowpipes, the Oxweld type C-14 cutting blowpipe is being offered at a new low price. This blowpipe, with a complete cutting range, may be used either with a low pressure injector or a medium pressure mixer nozzle.

REPAIR SHOP LATHE BULLETIN

"Repair Shop Lathes" is the title of a booklet, just published, describing a new line of low priced lathes designed for general service shop work. Seven sizes of lathes, from 8-inch to 36-inch swing, are described and illustrated in both motor drive and countershaft drive models. An introduction gives recent trends and developments in automotive servicing work.

These new repair shop lathes are of the back-geared, screw cutting type and, according to the manufacturers, are of simplified mechanical design and construction. Because of this, the lathes are said to be easy to operate, safe and economical in operation, and capable of turning out all machining work with speed and precision.

It is stated that the 8, 9 and 11-inch lathes listed will handle such jobs as truing armatures, undercutting mica, refacing valves, machining pistons, making bushings, sharpening reamers, cutting screw threads and general machining work of small diameters.

The larger sizes, 13, 16 and 18-inch lathes, will perform, in addition to the smaller jobs just mentioned, such work as boring connecting rods, truing differential ring gears, machining flywheels and brake drum truing. The 36-inch Repair Shop Brake Drum Lathe will also handle all wheel and hub work.

There are also listed fifty-five automotive service job manuals, covering as many jobs, which are available to all automotive mechanics.

This booklet, called Bulletin No. 35, will be mailed free to any reader of this publication on request from the Technical Service Department, South Bend Lathe Works.

HAND BRINELL TESTING INSTRUMENT

The Poldi Steel Corporation is putting on the market a hand Brinell testing outfit of the impression comparator type, and of compact form. The set comes in a pocket size carrying case, and includes a test bar, magnifying glass and book of instructions.

The standard steel rod which comes with the unit is inserted into a casting between an anvil and a hardened steel ball. The anvil extends through the casting. The apparatus with the rod in place is put over a smooth spot on the material under test and is struck a light blow with the hammer. The mark on the standard steel bar and the indentation in the material being tested are measured with a magnifying glass and compared for size by means of a table contained in the book of instructions.

This set may be used for testing all sorts of malleable iron and steel in the same way that the standard Brinell ball impression test is employed, except for high alloy steels.

Tensile strength, measured by the ball impression method, is claimed not to vary more than plus or minus 5 per cent. from the real tensile strength of steel between 72,000 and 142,000 pounds per square inch. The variation between the tensile figure got from this Poldi set and on actual test may vary plus or minus 10 per cent.

MARKING PAINT FOR MACHINE PARTS

In shops making a business of repairing machinery, it is generally necessary to mark the parts of machines in some way so that they may be properly reassembled. The best way to mark such parts is to stamp them with steel dies, but this is not always practicable.

In the absence of such means of marking, use a marking paint made of white lead mixed with turpentine to a thin consistency. Such paint dries quickly, and when dry is not easily removed. It has the advantage of showing up fairly well on greasy surfaces, but it is better that the surfaces to be marked should be well cleaned with kerosene before marking.—F. Emerson, in Tool Tips.